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REVIEW OF LABOR AND ECONOMIC CONDITIONS

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Manuscripts of articles are welcomed and should be submitted to the Editor. Articles on labor market conditions and the economic welfare of Minnesota workers are preferred, but subjects which can be shown to be closely related to general economic conditions within the State will also be considered. Articles should be submitted complete with tables and graphs. Length generally should not exceed the equivalent of ten single-spaced typewritten pages, including graphs, references, and notes.

All signed articles appearing in this publication together with the Editorial Comment represent the views of the author or editor and not necessarily those of the Department. Questions or comments to the authors may be directed to the Research and Statistical Services Office of the Minnesota Department of Economic Security, 390 N. Robert Street, St. Paul, Minnesota, 55101 or (612) 297-6545.

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Editorial Comment

SOCIAL SECURITY: RHETORIC AND REALITY

By R. Pinola

Election compaigns are notorious for rhetoric and weak on analysis. The malady is not restricted to politicians or campaign managers, it extends to all segments of society, from news media to interest groups to the citizenry. With respect to our Social Security system there is still the mistaken notion that benefits are in exact proportion to contributions paid. Nothing could be further from the truth. Benefit levels are actually determined by the productiveness of our economy, which is reflected in economic growth, and the social consciousness of the citizenry. The mere fact that contributions are paid on covered earnings which, in turn, are used to determine benefits, is more an administrative convenience and a method of handling the issue of equity between persons than as a basis for determining the level of benefits. By this we do not mean to imply that payroll taxes do not influence the level of benefits. They do, but it is the taxes paid by those still working that will determine how much I will receive in my retirement years.

Although social insurance differs from private insurance in that it uses a different concept of actuarial soundness, 1/ the benefits that each can provide depends on the earning power of the system. In the case of private insurance, it is the returns on invested premiums, both before and after the payment of annuity begins, that determine payback levels. In the case of the Social Security system it depends on the taxing power of the State. In the final analysis, however, the earning power and benefits of both systems depends on economic growth.

When the Social Security system was established, it was emphasized that benefits should be based on contributions. This view has been restated in Congressional hearings and deliberations and is still invoked in much of the recent debate on benefit levels. Despite the rhetoric, benefit levels have grown in relation to our perceived ability to soften the burden for our aged. Given robust economic growth, it is possible to raise benefit levels without any noticeable pain to those still working. Once the economy enters a period of less ample growth, the shifting of resources from one group to another to raise benefit levels becomes more difficult. However, with the money machine and inflation obscuring our vision of reality, we can be led to believe that raising benefit levels is relatively painless. How else can one explain the legislative experience of the 1970's?

To illustrate the divergence between contributions paid and benefits received and, therefore, the extent of resource shifting required, we calculated the payback to a person who first came under the Social Security system in 1951 and retired at the age of 62 in 1982 with earnings at least equal to the taxable wage ceiling in each of the intervening years. 2/ In deriving the investment value

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1/ Under private insurance actuarial soundness calls for a reserve fund sufficient to pay all existing liabilities (claims), whereas under social insurance actuarial soundness is deemed to exist when long-run revenues equal long-run costs. This difference in defining actuarial soundness is predicated on the assumed operation in perpetuity of the Social Security system. Hence, reserves are needed only to cover temporary shortfalls in revenue, and the system operates as an intergenerational distribution of income through pay-as-you-go financing.

2/ By so doing, we are able to show the rate of return under the most conservative scenario since a lower wage rate would yield considerably higher returns due to the high redistribution character of the benefit formula.

of combined employer-employee contributions, we used a rather liberal 6 percent rate of interest for compounding purposes. At the end of 1981, the investment value of the combined contributions was $36,660. We then determined the monthly benefit amount for our retired person based on his covered taxable earnings record. This came to $510 per month in 1982. Making the rather heroic assumption that benefit levels in subsequent years would remain at the 1982 level, and that our retiree would live 10 years beyond the date of retirement, we used the capital recovery formula to estimate the rate of return on the $36,660 investment of combined contributions plus interest. The beneficiaries rate of return roughly was 11 percent, or about 5 percent more that the Social Security trust fund would yield on his 1979 investment. Had we used a 5 percent annual COLA adjustment to benefits for each of the years succeeding 1982, the rate of return would have been slightly in excess of 16 percent.

It should be noted that not only does the retiree obtain retirement benefits substantially in excess of the present value of contributions, but that the system provides survivorship insurance as well to children under 18 years of age and to the widow in whose care such children are left. Moreover, our calculation of the rate of return was for a person who had earnings in each year that were at least equal to the taxable wage ceiling. Because Social Security is a redistributional income maintenance program, a person with a lower wage rate would contribute proportionately less but receive benefits that were not scaled downward by the same relative amount. In this case the rate of return would be higher than in our conservative estimate described above. In any event, the rates of return received by beneficiaries is substantially greater than the yield on the trust fund and, therefore, represents a considerable favorable shift of resources to beneficiaries which can continue to be made only if robust economic growth can be achieved. It has become increasingly evident that Congress will need to pay more attention to the relationship between benefit levels and economic growth because the redistribution of wealth from workers paying payroll taxes to Social Security beneficiaries can become very painful in the absence of economic growth.

One of the primary reasons that the Old Age and Survivors Insurance program has faced impending solvency problems in the 1970's is that benefit levels were adjusted upward on the basis of presumed rates of growth in the economy. No sooner had a new schedule of payroll taxes been established to finance the higher level of benefits than it became obsolete in the face of unrealized growth. On the other hand, higher payroll taxes increased the burden on the employed and, in turn, may have limited the very growth needed. Unless robust economic growth can be achieved, the Nation may be faced with yet another Catch-22 problem.

Research Summaries

THE DISPLACED WORKER

By Bruce Steuernagel

The depressed conditions in the Nation's basic steel and automobile industries has resulted in the permanent closing of numerous factories and plants throughout the country, especially in the industrial Midwest. Once again the problem of how to deal with the unemployment situation of "dislocated workers", those who have lost jobs because of a plant closure or who are unemployed and have extremely limited opportunity for re-employment in their occupation, is being addressed by new employment and training legislation.1/ This article summarizes some of the findings of a book entitled Plant Closings and Economic Dislocation.2/ The book reviews 20 of the most significant plant-closing research studies done over the past twenty years in the U.S. and Canada. The authors reviewed the literature concerning the reemployment experiences of displaced workers, responses to plant closings from management, union and community, the mental health outcomes of unemployment, and the participation of workers in transfer, retraining, retirement, and early notice programs. The rest of this article will focus on two of these areas, the job search and reemployment experiences of the workers and the impact of retraining programs.

Up to this point, most of the case studies of plant closing have focused on manufacturing plants, such as those in the meat packing industry or auto industry. They also have researched the impact of the closing on the workers who remained when the plant closed its gates for the final time rather than studying the overall contraction of the plant's work force prior to closing. As a result of these two shortcomings, the displaced workforce demographic data tends be biased towards older, male workers because females and minorities are underrepresented. The age of dislocated workers is high due to reverse seniority layoff rules and the fact that younger workers (under 40 years old) have been released in the months when the firm's workforce was contracting. Because of their age, older workers tend to have low educational attainment, a factor which significantly influences their employment development and retraining decisions.

Past case studies have investigated the job search activity of displaced workers. They have generally found that the initiation of a job search is associated with the occupational status of the worker and the availability of severance benefits. A higher percentage of white-collar than blue-collar workers leave before the plant closes. This may be because they are better able to take time off to search for a job, may be more intense and better organized in their job search, and may be in touch with better information channels. Severance benefits appear to have a negative effect on blue-collar job search. The workers' assessment of the availability of other jobs in the community, of course, also significantly influences their job search activity. With regard to where displaced workers look for new employment, occupational status again played a significant role. White-collar workers are more likely to extend the boundaries of their labor market. More males than females are

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1/ Particularly the Job Training and Partnership Act of 1982.

2/ Plant Closings and Economic Dislocation, Gordus, Jarley, Ferman, W.E. Upjohn Institute for Employment Research, Kalamazoo, Michigan, 1981.

willing to relocate. This is probably due to the fact that at the time these studies were conducted, females' secondary income status in a household reduced the opportunity for relocation. Women may also put a high priority on family or other ties to a community and be less willing to move. As would be expected, younger workers were more likely to move than older workers who again may have stronger community associations and take into consideration the cost of the move in relationship to the shorter length of their future working life.

The studies generally found that older, unskilled workers were more likely to use formal placement assistance, possibly as a way to compensate for job market disadvantages they felt they had. For most displaced workers, direct application and job leads by relatives or friends proved to be the most effective way to find work. Young workers and those with transferable skills are most likely to find reemployment. However, the studies showed that the average spell of unemployment following a plant closing ranges from 16 to 22 weeks. Significantly, many of the workers who did find employment changed occupations, and such changes, especially for unskilled and semi-skilled workers, were into jobs requiring less skill and offering lower income.

One of the proposed solutions for displaced workers joblessness is retraining. In seven of the 27 case studies reviewed, workers were offered retraining. The participation rates of workers in retraining ranged from a high of 16.4 percent to a low of 6 percent. The demographics of the workers has much to do with the acceptance of retraining as an option. As we have mentioned, older workers tend to dominate the work force of a closed plant. For them retraining is less attractive because they have a shorter amount of time to accumulate the benefits of retraining. They see their chance of getting a job in a new occupation even with training but no experience as being remote. Also there may be a significant identification with their old occupation which they psychologically do not want to part with. According to the studies, financial support has generally been inadequate to keep workers from dropping out of retraining. There is no research that presents cost-benefit analyses of retraining programs for displaced workers. Also, the authors concluded that there was insufficient evidence to draw conclusions about the effectiveness of retraining as an unemployment-reducing or employment opportunity - expanding tool.

After reviewing some of the programs tried up to this point, the authors propose a program which differs from those tried in the past in several respects. First, it offers more than one activity designed to facilitate reemployment. Management would adopt the policy of early notification of the plant closing, allow time off for interviewing, possibly retain the services of a team which would offer employability development programs prior to the closing. When possible, the options of transfer, retraining, and employability development assistance should be offered. Second, coordination between management, labor, and the community is needed to provide services for personal, family, and health problems during a transition period. Third, local education and employment service agencies are encouraged to provide training based on a knowledge of local labor needs and forecasts of future labor market trends. These coordinated local efforts will provide a sound basis for long-term economic development efforts in the area. In the final analysis, the success of a program for displaced workers depends to a great deal on the local labor market and the health of the national and regional economy.

The Job Market

THE FINANCE INDUSTRY

By Bev Jones

Employment in the Finance Industry has suffered little from the general business cycle. The fairly steady growth over the past 20 years has resulted in a doubling of employment since 1960. While most industries in Minnesota have posted losses in the 1982 monthly employment estimates when compared to year-ago figures, the Finance Industry has shown modest gains. This article will look briefly at the Finance Industry; its composition, employment, location, and occupational staffing patterns.

The Industry

The Finance Industry can be broken down into three major components: Banking; Credit Agencies other than Banks; and Security and Commodity Brokers, Dealers, Exchanges, and Services. Banking consists of institutions which are engaged in deposit banking or closely related functions, including fiduciary activities. Included in Banking are institutions such as the Federal Reserve Banks, Commerical and Stock Savings Banks, Mutual Savings Banks, and some Trust Companies. The Credit Agency group is comprised of establishments engaged in extending credit in the form of loans, but not engaged in deposit banking. This group includes Rediscount and Financial Institutions for Credit Agencies other than Banks, Savings and Loan Associations, Agricultural Banking Credit Institutions, and Mortgage Banks and Brokers. The final major division, Security and Commodity Brokers and Dealers, includes establishments engaged in the underwriting, purchase, sale, or brokerage of securities and other financial contracts on their own account or for the account of others; exchanges, exchange clearinghouses, and other services allied with the exchange of securities and commodities. This group includes Security Brokers, Dealers, and Flotation Companies, Commodity Contract Brokers and Dealers, Security and Commodity Exchange, and Allied Services.

There are nearly 1,850 Finance firms employing over 46,000 workers in the State, accounting for approximately three percent of the State's nonagricultural wage and salary employment. Slightly more than half of this employment is in the Minneapolis-St. Paul SMSA. Two thirds of the employment is in Banking, 22 percent in Credit Agencies other than Banking, and the remainder in Security and Commodity Brokers and Dealers.

Occupational Staffing Patterns

Occupational staffing patterns for the Finance Industry, as shown on Table I, indicate that 80 to 85 percent of the workers fall into two broad occupational categories; namely, Managers, Officials, and Proprietors (28.7 to 33.4 percent) and Clerical Workers (52.4 to 53.9 percent). Looking at these staffing patterns during the time period 1970 to 1985, a definite trend toward a higher proportion of Managerial employees can be seen.1/ The number of Bank and Financial Managers, which comprise approximately 82 percent of the Managers, Officials, and Proprietors category in the Finance Industry, grew at a faster pace than the industry as a whole. They increased by nearly 52 percent from 1970 to 1978 and are projected to climb another 45 percent to 14,500 by 1985.

1/ All references to 1985 employment or staffing patterns are based on data from Minnesota Employment Outlook to 1985, Minnesota Department of Economic Security, Research and Statistical Services Office, January 1981.

Although the proportion of Clerical workers in this industry is declining slightly, they comprise more than one-half of all the workers in Finance. Over two-thirds of the Clerical workers in this industry fall into three occupations; namely, Bank Tellers (34.0 percent), Secretaries and Typists (20.8 percent) and Bookkeepers (14.0 percent). The slower growth in clerical jobs is mainly due to automation.

Professional, Technical, and Kindred Workers comprise approximately six percent of this industry. The top four occupations in Finance are Accounts (51.2 percent), Computer Specialists, Programmers, and Analysts (14.8 percent), Personnel and Labor Relations workers (6.6 percent), and Economists (6.5 percent). The number of Sales workers in the Finance Industry is expected to expand by close to 30 percent from 1978 to 1985. However, the proportion of Sales workers in this industry is edging downward. The only other occupational category with significant employment is Services; two-thirds of which are Cleaning Service workers and most of the remainder are Security Guards.

Employment in all but two of the occupations mentioned above is expected to increase at a faster rate than total employment in Minnesota. The number of Computer Specialists and Bookkeepers is expected to increase at about the same pace as total employment.

TABLE I

Occupational Staffing Patterns For the Finance Industry2/

	Percent of Industry		
Occupational Groups	1970	1978	1985
Professional, Technical, & Kindred	5.7	6.4	6.0
Managers, Officals, & Proprietors	28.7	32.0	33.4
Sales	8.1	5.2	4.9
Clerical	53.9	53.2	52.4
Craft & Kindred	0.6	0.5	0.5
Operatives	0.3	0.3	0.3
Service	2.6	2.5	2.5
Laborers except Farm	0.0	0.0	0.0
Farm Laborers	0.0	0.0	0.0

2/ Source: Minnesota Employment Outlook to 1985, Minnesota Department of Economic Security, Research and Statistical Services Office, January 1981.

SUPPLY/DEMAND FOR SPECIFIC OCCUPATIONS, OCTOBER 1982[1/]

By Sue Hamper

MINNESOTA

Shortage Occupations: experienced engineers#, experienced systems analysts and computer programmers#, commissioned sales persons#, highly skilled clerical workers#

Surplus Occupations: *teachers#, retail sales clerks#, construction workers#, truck drivers#, general laborers#, factory workers#*

CENTRAL MINNESOTA

Shortage Occupations: none

Surplus Occupations: *retail sales clerks#, secretaries#, welders#, machinists, factory workers: assemblers#, and finishers*

MINNEAPOLIS-ST. PAUL SMSA

Shortage Occupations: experienced engineers#, experienced systems analysts and programmers#, commissioned sales persons#, highly skilled clerical workers: stenographers and typists#

Surplus Occupations: *counselors#, cashiers#, bartenders#, general foundry worker#, production machine tenders#, electrical accessories assemblers#, production line assemblers#, construction workers#, truck drivers#, general laborers#*

NORTHEASTERN MINNESOTA

Shortage Occupations: none

Surplus Occupations: *engineers, teachers#, social workers#, drafters, office clerical workers#, sales clerks#, waiters/waitresses#, construction workers#, heavy equipment operators#, truck drivers#, mining workers#, general laborers#*

1/ Shortage occupations are those that are difficult to fill or go unfilled due to the lack of qualified applicants. Surplus occupations are those in which the number of qualified applicants greatly exceeds the number of openings.

# This occupation has been listed as a shortage or surplus occupation in at least two out of the last three quarters of the Review.

NORTHWESTERN MINNESOTA

Shortage Occupations: commissioned sales persons

Surplus Occupations: *sales clerks#, office clerical workers#, truck drivers, construction workers#*

SOUTHERN MINNESOTA

Shortage Occupations: sales representatives#, secretaries with shorthand skills

Surplus Occupations: *elementary and secondary school teachers#, general clerical workers#, construction workers#, food preparation workers, factory workers#*

NOTE: The Experienced Supply/Job Openings Demand table, a regular item in The Job Market Section, has not been included in this issue due to new fiscal year processing delays. The information will be included in future issues.

Feature Article

DEVELOPING A MODEL FOR FORECASTING UNEMPLOYMENT INSURANCE CASH FLOWS

By R. Pinola, Charles Cline, and Al Hauwiller*

I. Introduction

In the August 1981 issue of this publication we discussed the need for and formulation of a model to project unemployment insurance (UI) cash flows.1/ At that time we pointed out that because of the difficulties in developing reliable long-range forecasts, a projections model based on the assumed behavior of key economic variables was a simpler and more practical vehicle for making reasoned cash flow policy decisions with respect to the Minnesota UI system. For this reason, we developed a model that permitted long-range estimates of tax revenues and benefit payments to be made based on different, well-defined economic scenarios.

Over the past few years, our projections model has been used in much the same way as best and worst case decision models to evaluate different policy prescriptions for effecting UI cash flows. In general, the projections model has been useful for estimating how changes in the taxable wage base, tax rates, wage loss replacement rates, and eligibility requirements impact on revenues and benefit costs under varying economic conditions. Despite its better than average record, however, it should be noted that a projections model does not lend itself to accurate short-run forecasts of cash flows unless one can reliably assign probability values to the occurrence of specific economic scenarios and the key variables in the cost and revenue equations. Rather than rely on our ability to unerringly make such probability assignments, we thought it better to directly forecast the value of key variables using established statistical methods for which probability estimates of errors of prediction and measures of confidence can be made. This article represents a progress report on this effort.

To facilitate comprehension, we first restate the revenue and cost equations for UI cash flows, noting and describing the key variables, and then proceed to discuss the methods that we employed to predict the value of these variables. We conclude our discussion with a comment on our findings and work still to be done. A terse summary considers the efficacy of the forecast model when regarded against actual experience.

II. Relevant Variables

There are relatively few variables that determine the level of unemployment benefits to be paid and revenue to be received. (See the Cash Flow article referred to above.) Benefits are equal to the average weekly benefit times the number of weekly payments. In order to make comparisons over different time periods, it is customary to convert the number of benefit payments to a rate by dividing their total amount by average covered employment. This rate is called the compensable unemployment rate (CUR). Therefore, estimating future benefits involves estimating 1) covered employment 2) the compensable unemployment rate, and 3) the average weekly benefit amount. The last item has some peculiarities which will be left for later discussion.

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* This article was prepared by R. Pinola, Charles Cline, and Al Hauwiller, Research Director and Senior Research Analysts, respectively, of the Minnesota of Department of Economic Security.

1/ See, Developing a Cash Flow Model of Minnesota's Unemployment Insurance Program by R. Pinola and John Berglund, Review of Labor and Economic Conditions, Vol. 8, No. 2, Second Quarter 1981, p. 10-16.

In a similar manner, revenue is the product of taxable wages and the average tax rate. Taxable wages are a function of total wages paid and some formula or figure specified in the law as the ceiling on wages to be taxed. The average tax rate is primarily dependent on the minimum and maximum tax rates as provided in the law.

In mathematical terms, the relevant equations for the UI cash flow model are:

$$\text{Benefits} = \text{CUR} * \text{EMPL} * \text{AWBA}$$
$$\text{Revenue} = (\text{EMPL} * \text{AWW} * \text{TAXPROP} * \text{AVTAX}) + \text{Int.}$$

where:

EMP = tax rated covered employment
AWW = average annual wage per employee
TAXPROP = expected proportion of total wages that are taxable
AVTAX = average tax rate applicable to taxable wages
INT = interest earned on fund
CUR = compensable unemployment rate
AWBA = average weekly benefit amount

The behavior of the UI fund depends on the interaction of statutory and economic variables. Statutory variables are those determined by the legislature. Economic variables are those determined by the economy. Examples of statutory variables are the experience rating factors and the maximum weekly benefit allowed. Examples of economic variables are the number of employed, the unemployment rate, and the wage level.

Since the statutory variables are presumed to remain unchanged in the short-run (one year), we are only interested in forecasting the economic variables e.g. covered employment, average weekly wage, and the compensable unemployment rate. It is to these that we now turn.

III. Attempts at Forecasting Component Variables

A. Compensable Unemployment Rate

Reviewing the historical data, it will be noticed that the compensable unemployment rate (CUR) has by far the largest influence on the amount to be paid in benefits. In Minnesota it is also the most variable, ranging from under two percent in a low unemployment year to over four percent in a high unemployment year. Even worse, it seems to be the most unpredictable of the variables. Consequently, most of the effort in this project until now has been spent in trying to forecast the CUR.

We first decided to examine the relationship between the seasonally adjusted quarterly CUR and the Handbook Labor Force Unemployment Rate (UR) over the entire period for which data was available, 1966 to 1981. The simple linear fit showed evidence of strong autocorrelation (D-W=.39). This led to a considerable study of the residuals and an examination of a large number of combinations of variables, the residuals of each being calculated and plotted in order to better understand the relationships. The highest R^2 (97.7 percent) was reached with an equation that included the unemployment rate for the current period, the previous period, the second previous period, T the ith quarter in the time series, and T^2. Moreover, confidence in the specification of the equation was enhanced by a much improved measure of autocorrelation (D-W=1.62).

As an alternative, it was decided to see if the CUR forecast could be obtained more directly by regressing it on previous values of itself. Eventually a formula evolved which contained the current and four lagged quarterly values of the compensable unemployment rate and the current and four lagged quarterly values of Gross National Product.

At this point we decided to test the performance of the equation just described as a forecasting tool. This is possible by breaking the data into two periods, an initial estimating period and a test period. What is done is to make the initial estimate of the forecasting equation from the data set apart from that used for the testing period. Forecasts are then prepared based on the estimating equation and the estimating data set. We wanted to be able to estimate four quarters ahead. Thus, based on the initial data set we would have one each of the forecasts for one, two, three, and four quarters ahead.

To obtain the second set of forecasts the data set is expanded by one step, the forecasting equation reestimated, and four more forecasts prepared. At this point, we have two each of one, two, three, and four quarter-ahead forecasts. The test continues in this way until the estimating data set comprises the entire data set and no new forecasts can be prepared for comparison. At this point the analyst will have a number of one, two, three, and four quarter-ahead forecasts and since we have actual data available, the forecasting error can be computed.

It was in the testing process that we were most keenly aware of the limitations imposed by virtue of having only 64 observations. Clearly, one wants to have a sizeable number of test forecasts so that the errors thereby computed are representative, as a group, of the average forecast performance rather than being due to any unique set of circumstances. This argues for a sizeable test period. However, increasing the portion of the data to be set aside for the test period means reducing the data available for the initial estimating period and this, in turn, reduces the quality of the initial estimate. Note that to make even a minimal estimate requires one more observation than the total number of explanatory variables used in the regression model. In the tested model there are twelve explanatory variables: a constant, trend, trend-squared, four lags of the compensable unemployment rate, and four lags of real Gross National Product. Moreover, when there are lagged values in the equation the total number of usable observations is the number of observations in the data set less the length of the longest lag. Here the longest lag is four. Thus the number of usable observations is the 64 observations in the data set less four (the longest lag), or 60. From this we subtract the number of explanatory variables, or twelve. This leaves 48 quarters to be divided between the initial estimation period and the test period. We felt that a minimum number of 16 quarterly forecasts was needed in one-quarter-ahead forecasts to establish a reasonable degree of confidence in our test results. This criterion provided us with 16 one-quarter-ahead-forecasts, 15 two-quarter-ahead-forecasts, 14 three-quarter-ahead forecasts, and 13 four-quarter-ahead-forecast of CUR. As a result only 24 observations were left for the initial estimation period.

The test forecasts were compared with the actual value of CUR over the test period and the mean absolute error calculated for the relevant quarters. Table I provides the results of our test.

Table I
Mean Absolute Error of Forecast Test

Quarters Ahead Forecasted	Mean Absolute Error	Number of Tests
1	0.32 Percentage Points	16
2	0.77 Percentage Points	15
3	1.07 Percentage Points	14
4	1.29 Percentage Points	13

When evaluating these results the reader should keep in mind that the variable being forecasted, CUR, is the compensable unemployment rate. Over the past 64 quarters this variable had a minimum value of 0.9 percent and a maximum value of 5.1 percent. For the forecast test period the low and high values were 1.6 and 4.1 percent respectively. This was accepted as a reasonable enough forecast to justify preliminary work toward incorporating the forecasted value into the cost equation.

B. Covered Employment

The variable, EMPL, appears on both sides of the cost model described on page ten. As used in the model, this variable is described as follow:

EMPL = Employment among those firms which participate in the State unemployment insurance fund on a nonreimbursable basis.

This count is not the same as total employment. For example, self employed workers are not covered by unemployment insurance and are, therefore, not included in EMPL. Nor is EMPL the same as nonagricultural wage and salary employment. For example, employees of religious organizations and railroads are included in wage and salary employment estimates but not in EMPL. Finally, EMPL excludes some kinds of workers who are covered by the unemployment insurance program, but whose claims are not a drain on the fund. These are employees employed among reimbursable employers; such employers are billed directly on a dollar for dollar basis for the claims made against their account during the quarter. Payment is due within 30 days and interest is charged on unpaid balances. Therefore, benefits paid to such workers are not a drain on the fund. Examples of reimbursable employers are state and local government, charities, and nonprofit organizations.

All of this aside, the fact remains that EMPL is very close numerically to total nonagricultural wage and salary employment (nonagricultureal wage and salary employment is denoted by MNEMP in the following discussion for the sake of brevity). This can be seen more precisely by a simple regression to estimate the mathematical relationship between EMPL and MNEMP. When such a simple regression is run the result is:

$$\begin{aligned} \text{EMPL} &= \text{CONSTANT} + \text{B} * \text{MNEMP}, \text{ or} \\ \text{EMPL} &= -178.3050 + 0.864 * \text{MNEMP} \end{aligned}$$

This equation explains 99 percent of the variation in EMPL. While this is a provisional relation which can probably be improved upon, it indicates the closeness in relationship between the two. Hence, if one can secure a reliable forecast of MNEMP, it can readily be translated into a good estimate of EMPL for the cash flow model.

This is important because since 1980, the Department, specifically the Research and Statistical Services Office, has had a means to forecast MNEMP.2/ The forecast is an intermediate term system, designed to produce forecasts for a time period up to eight quarters into the future. Testing of the MNEMP forecast model showed errors in the neighborhood of half of one percent, and experience with the model since that time confirms the continued reliability of estimates derived from it.

2/ This method is discussed in the article, "Forecasting Minnesota Employment, The Method of Vector Autoregression", in the May 1981 issue of the Review. An expanded discussion appears in the report, Cyclical Sensitivity In Minnesota, August 1981, by Rao Aiyagari. These publications are available upon request to R. Pinola, Director, Research and Statistical Services Office.

Tables II and III display the forecast results for the period 1981-1 (first quarter, 1981) through 1982-3. In each of the tables column one contains the calendar period and column two contains the actual revised estimate of MNEMP for each quarter as calculated on the basis of the CES-790 payroll employment survey. The remaining columns in Table II give the forecasts made anytime between one and eight quarters prior to that listed in the left hand column. For example, the actual estimate for 1982-1 MNEMP was 1710.41, or 1,710,410. Under the column headed "T + 1" is the forecast of MNEMP for 1982-1 made one quarter earlier (in 1981-4). The forecasted value was 1707.93. The forecast for 1982-1 made two quarters prior (in 1981-3) was 1712.34. Going horizontally the forecasts are made further and further ahead. The final value, 1685.88, is the forecast made eight quarters prior to 1982-1, or in 1980-1.

Table II

Total Minnesota Wage and Salary Employment
Actual and Forecasted Values

		Forecasted Values							
	Actual Data	T + 1	T + 2	T + 3	T + 4	T + 5	T + 6	T + 7	T + 8
1981-1	1732.00	1716.49	1709.70	1697.19	1717.66	1713.66	1750.74	1745.35	1759.20
1981-2	1775.03	1780.34	1742.76	1746.00	1741.01	1755.15	1756.78	1815.44	1817.65
1981-3	1711.57	1784.12	1789.65	1739.00	1753.97	1765.64	1760.14	1771.19	1849.66
1981-4	1771.90	1779.51	1784.91	1803.08	1749.30	1776.15	1787.56	1752.96	1781.38
1982-1	1710.41	1707.93	1712.34	1710.16	1748.43	1684.31	1729.22	1744.88	1685.88
1982-2	1732.33	1745.40	1741.96	1735.65	1733.07	1796.99	1716.42	1793.25	1830.83
1982-3	1708.86	1727.52	1741.82	1737.89	1722.67	1727.39	1872.99	1733.02	1838.35
1982-4		1723.84	1738.19	1744.05	1739.50	1718.50	1717.04	1833.95	1762.54
1983-1			1680.98	1687.95	1585.60	1679.83	1644.30	1635.07	1787.70
1983-2				1723.08	1733.31	1728.96	1722.88	1666.81	1659.56
1983-3					1735.39	1761.44	1743.70	1738.03	1665.39

Another way to interpret Table II is to read from the actual CES-790 estimate diagonally downward and to the right. These figures present the actual estimate for the quarter and the forecasts made at that time for the first, second, third, ..., and eighth quarter into the future. Taking 1982-1 again, 1710.41 was the actual value estimated from the survey. The values 1745.40, 1741.82, 1744.05, 1685.60, 1728.96 and 1743.70 were the forecasts for six quarters ahead (i.e; 1982-2, 1982-3, 1982-4, 1983-1, 1983-2, and 1983-4) all made in 1982-1.

Table III compares the forecasts for given time periods ahead with the actual estimate. The error as a percent of actual is presented. Continuing with our example of 1982-1, the one-quarter-ahead forecast prepared in 1981-4 was in error by -0.23 percent, or was an underestimate of less than one quarter of one percent. Similarly, the error for the two-quarter-ahead forecast of 1982-1 prepared in 1981-3 was 0.27, an overestimate slightly larger than one quarter of one percent. Finally, the eight-quarter-ahead estimate of 1982-1, prepared in 1980-1, was in error by just over 1.5 percent on the low side.

Table III
Total Minnesota Wage and Salary Employment, Actual Values and Percent Error of Forecasted Values
1981-1 through 1982-3

	Actual Data	T + 1	T + 2	T + 3	T + 4	T + 5	T + 6	T + 7	T + 8
1981-1	1732.00	-0.895	-1.287	-2.010	-0.828	-1.059	1.082	0.771	1.57
1981-2	1775.03	0.299	-1.818	-1.636	-1.917	-1.120	-1.028	2.276	2.40
1981-3	1771.56	0.708	1.021	-1.839	-0.993	-0.334	-0.645	-0.021	4.40
1981-4	1771.90	0.429	0.734	1.760	-1.276	0.240	0.884	-1.069	0.53
1982-1	1710.41	-0.230	0.027	-0.100	2.136	1.610	1.014	1.920	-1.51
1982-2	1732.33	0.754	0.556	0.192	0.043	3.733	-0.918	3.517	5.68
1982-3	1708.88	+1.071	1.907	1.677	0.787	1.063	9.582	1.392	7.55

Briefly the method employed to produce these forecasts is based on the relationships among current and past values of three variables, MNEMP, real Gross National Product (RGNP), and the interest rate on 91-day treasury bills INTRT. Values anywhere from four to eight quarters in the past are used in the estimating equations. This means that in the process of forecasting MNEMP, RGNP and INTRT are also forecasted. Moreover, it means that the model works by providing quarter by quarter forecasts ahead into the future. If one wants a forecast for MNEMP eight quarters from now, the model first provides a forecast for one quarter ahead of MNEMP, RGNP, and INTRT. Then the model makes a forecast for two quarters ahead using, in addition to actual estimates of the three variables, the one-quarter-ahead forecasted values. As the model works its way out to the eight-quarter-ahead forecast, it produces a forecast for each intervening quarter and, uses these prior forecasts to arrive at the final one.[3]

The combination of the performance of the forecasts of MNEMP and the closeness of the relationship between MNEMP and EMPL lead us to be satisfied that we have an acceptable method to forecast EMPL for use in each of the cost and revenue equations.

C. Average Weekly Wage

This factor has had only a preliminary look, but a regression using two previous values of the average weekly wage and a time variable explained 99 percent of the past variation. However, there is a problem in that the remaining variation seems to be concentrated in two particular quarters. What to do about this is now under consideration. It may be possible to improve estimates by adding a dummy variable for one quarter of the year. In any event further research needs to be done before we feel comfortable in forecasting the average weekly wage.

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[3] The exact mathematical specification of the equations can be found in the two publications cited in footnote 2.

D. Average Weekly Benefit Amount

The average weekly benefit amount (AWBA) is dependent mostly on the benefit formula specified by the state law. The rate of wage replacement is specified and there are minimum and maximum weekly benefits allowed by statute. Besides these factors, there are also differences in the characteristics of the beneficiaries which affect the average benefit amount. Most of the items usually change only yearly, so they are more relevant to projections than short-term forecasts. Nevertheless, there are strong seasonal factors due to the seasonal variation in claimant characteristics that must be considered, as well as the long-range trend in the average weekly wage. Given a good forecast of the average weekly wage to measure wage drift, estimating the AWBA becomes a relatively simple task.

IV. Problems and Further Work

It was hoped that the forecasting model would be in operation in time for the 1983 legislative session. It is now apparent that the analysis of historical relationships, development of new ideas, and testing of equations takes longer than anticipated.

At the present time, very satisfactory results have been produced in forecasting EMPL through MNEMP. Real progress has been made in forecasting CUR. While satisfactory on a provisional basis, more work remains to produce an acceptable final forecasting process for this important variable.

Two important features of the problem of forecasting CUR in comparison with EMPL must be kept in mind. First, in the development of the forecasting model for MNEMP, data exists back to 1950-1. This provides us with over 120 quarterly observations. However, with respect to our unemployment variables and, in particular, CUR, data goes back only to 1966-1, providing only about half as many observations. We pointed out that this seriously restricts our ability to develop and test the forecasting equations for CUR. Second, unemployment is inherently harder to estimate and forecast than employment. This is because the amount of relative variation in the data is greater. This goes beyond saying that the difference between the smallest and largest value is larger in relative terms; it means that the month to month fluctuations are also more sizeable and more frequent.

Our search for an improved forecasting tool for CUR will continue in two directions. One will be to examine the process of forecasting CUR based on its past values and the past values of total unemployment and real Gross National Product. The second is based on recognizing that in the cost, or benefit equation, the product of multiplying EMPL by CUR is simply the level of compensable unemployment. This suggests forecasting the level rather than the rate of this unemployment variable. We expect that work in this direction will produce improved results.

Work on the average weekly wage and average weekly benefit should go more smoothly than has work on the compensable unemployment rate. Preliminary work on these variables suggests the validity of this assumption.

Once the benefit payment side of the forecast model is in hand, attention will be given to the revenue side. Some of the variables for revenue forecasting will already be available, e.g., covered employment and the average weekly wage. The others, the taxable wage and average tax rate, do not require forecasts so much as annual estimates with some adjustment for each quarter of the year.

Summary

It is axiomatic that, regardless of their form and nature, forecasting models are only as good as their ability to predict the future. Although the relative errors that apply to our regression equations for predicting the values of the key variables in our revenue and cost equations may be small, we have yet to determine how well cash flows that are based on these forecasts will track with actual experience. As we noted earlier, we still need to develop a good predictor for wage drift and to determine the applicable tax rate for the forecast period. Once these have been established, we will run quarterly simulations and test them against actual experience for past years. At this juncture in our research, we feel confident that fairly reliable four-quarter-ahead forecasts of cash flows can be made with our model. However, as with the proverbial pudding, the proof is in its consumption/use. Meanwhile experimentation will continue to see if we can improve on our ability to forecast the key variables and to determine whether structural changes in the economy will necessitate a reformulation of our model.

Brief Analysis Of Economic Conditions

THE NATIONAL AND STATE ECONOMIES IN THE THIRD QUARTER

By Ben Boyle

NATION

Except for some signs of improvement in the housing industry, the weakness in the Nation's economy continued through the third quarter and into October. Further declines in industrial production and industry employment suggest that a recovery has yet to begin. However, the drop in the discount rate to 9.0 percent in late November should lead to even lower interest rates and some increase in economic activity in the first half of 1983.

Labor market conditions deteriorated almost steadily during the third quarter and were quite bleak in October. The seasonally adjusted unemployment rate reached 10.4 percent in October, up from 10.1 percent in September and 9.5 percent in the second quarter. Total employment (seasonally adjusted) dropped sharply in October and has decreased by 670,000 since the end of the second quarter. Also, seasonally adjusted nonfarm payroll employment declined substantially in October and was 914,000 below the level of June. Over half of the drop in payroll jobs since June was in the cyclically sensitive durable goods manufacturing industries.

Other economic indicators also showed a weak economy in the third quarter and October. The latest revision revealed that real gross national product did not grow during the third quarter. Also, industrial production and factory utilization as a percent of capacity continued to fall through October. Some good news in October, however, was that there were large rises in building permits for private housing in September and October. These increases in permits should be followed by a higher level of housing starts in the coming months.

STATE

The Minnesota economy also continued to be quite sluggish during the third quarter and into October. Both the number of unemployed and the unemployment rate remained very high in the summer quarter and then rose further in October. However, the declines in seasonally adjusted nonagricultural wage and salary employment slowed noticeably in September and October.

After averaging 7.3 percent in the third quarter, the third highest quarterly rate since labor force rates were first computed in 1970, the State's seasonally unadjusted unemployment rate climbed to 7.6 percent in October. The 0.4 of a percentage point rise in the rate in October was steeper than normal. However, this may be an aberration because the UI claim load actually fell in October. Total employment, also unadjusted, appeared to be showing more strength in August and September as the over-the-year declines were less than in previous months. In October, however, the drop from a year earlier again was quite large. On the other hand, seasonally adjusted nonfarm wage and salary employment fell only 1,600 between August and October after average monthly declines of 6,700 between October 1981 and August 1982.

Other economic data for the third quarter and October also suggested that the State's economy was still very weak. Both housing permits and retail sales were little changed in the third quarter from the second quarter and were not significantly above the third quarter of 1981. Also, seasonally adjusted average weekly initial claims for unemployment benefits were higher than the averages of the second and third quarters in September and October.

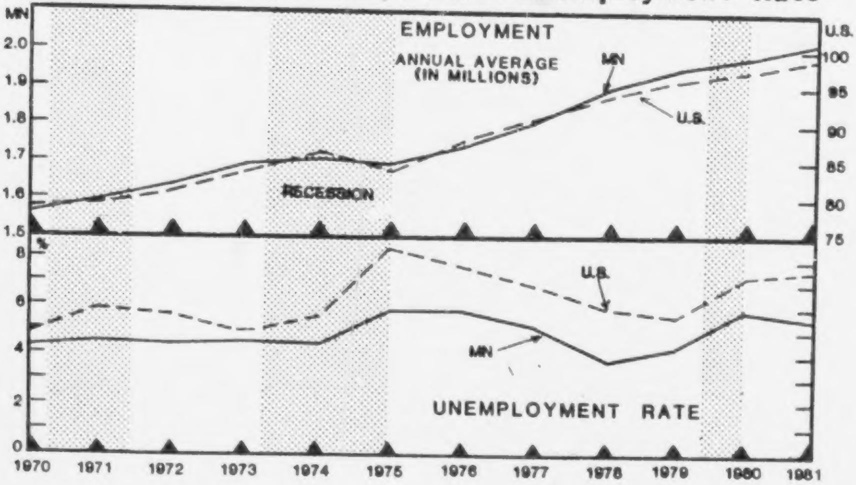
Labor Force Statistics

Labor Force Estimates	MINNESOTA (Numbers in '000's) October 1982	MINNESOTA Change From Last Mo.	MINNESOTA Change From Year Ago	UNITED STATES (Numbers in '000,000's) October 1982	UNITED STATES Change From Last Mo.	UNITED STATES Change From Year Ago
Civilian Labor Force	2166.7	-6.1	9.3	110.7	0.2	1.5
Employed	2001.2	-15.9	-54.1	99.8	-0.1	-1.2
Unemployed	165.5	9.8	63.4	10.9	0.3	2.7
Unemployment Rate						
Actual	7.6	0.4	2.9	9.9	0.2	2.4
Seasonally Adjusted	n.a	n.a	n.a	10.4	0.3	2.4

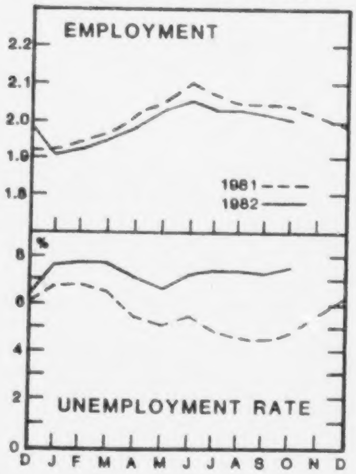
Historical Labor Force Series

Year	Minnesota (Annual Average in '000's) Labor Force	Minnesota Employment	Minnesota Unemployment Number	Minnesota Unemployment Rate	United States (Annual Average in '000,000's) Labor Force	United States Employment	United States Unemployment Number	United States Unemployment Rate
1970	1625.0	1557.0	68.0	4.2	82.8	78.7	4.1	4.9
1971	1665.0	1593.0	73.0	4.4	84.4	79.4	5.0	5.9
1972	1709.0	1635.0	73.0	4.3	87.0	82.2	4.9	5.6
1973	1774.0	1694.0	80.0	4.5	89.4	85.1	4.4	4.9
1974	1779.0	1701.0	77.0	4.3	91.9	86.8	5.2	5.6
1975	1804.0	1697.0	107.0	5.9	93.8	85.8	7.9	8.5
1976	1849.0	1739.0	109.0	5.9	96.2	88.8	7.4	7.7
1977	1907.0	1809.0	97.0	5.1	99.0	92.0	7.0	7.1
1978	1979.0	1903.0	75.0	3.8	102.3	96.0	6.2	6.1
1979	2038.0	1953.0	85.0	4.2	105.0	98.8	6.1	5.8
1980	2108.0	1982.0	125.0	5.9	106.9	99.3	7.6	7.1
1981	2143.0	2024.0	118.0	5.5	108.7	100.4	8.3	7.6

MN and the U.S., Employment & Unemployment Rate



MN, 1981 and 1982



Labor Market Conditions

The table and graphs in this section describe the behavior of the market for labor services in terms of its quantity, price, and supply. The quantity of labor services, which is the number of employed persons, is classified by industry. The price of labor services is roughly indicated by the industry wage

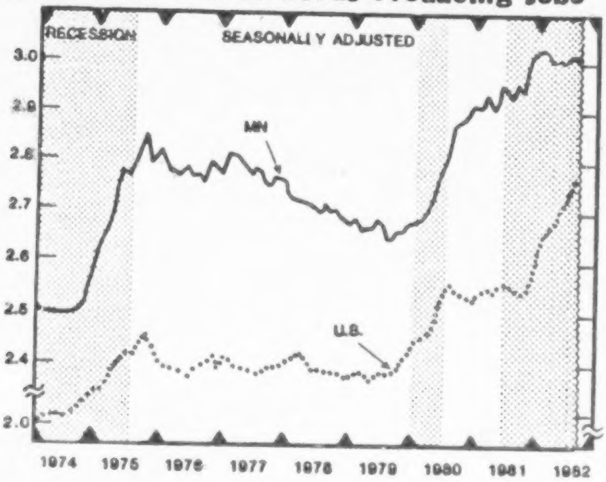
Unemployment estimates provide a qualified measure of excess labor supply. The degree to which persons participate in the labor market and the effectiveness of the market in utilizing labor services are indicated by Labor Force Estimates and by Other Rates of Labor Utilization.

Labor Force And Establishment Data	MINNESOTA (Numbers in '000's)			UNITED STATES (Numbers in '000's)		
	III Qtr 1982	Percent Change From		III Qtr 1982	Percent Change From	
		Last Qtr	Year Ago		Last Qtr	Year Ago
LABOR FORCE ESTIMATES						
Total Labor Force	2178.3	0.4	0.4	111653	1.4	1.8
Employment	2019.7	0.1	-2.4	100839	1.0	-0.9
Nonagricultural	n.a	n.a	n.a	96989	0.7	-1.0
Agricultural	n.a	n.a	n.a	3850	9.2	1.7
Unemployment	158.6	5.0	58.0	10814	5.3	35.4
By Reason - New Reentrants-%*	n.a	n.a	n.a	33.9	0.9	-9.4
By Reason - Quit-%*	n.a	n.a	n.a	7.2	-14.3	-36.3
By Reason - Lost-%*	n.a	n.a	n.a	58.9	1.6	14.8
Unemployment Rates						
Actual	7.3	4.3	58.7	9.7	4.3	32.9
Seasonally Adjusted	n.a	n.a	n.a	9.9	4.2	33.8
OTHER RATES OF LABOR UTILIZATION						
Participation Rt (Labor Force/Population 16+)	n.a	n.a	n.a	64.2	0.3	0.6
Full Employment Deficit - Percent of Workers1/	3.3	3.0[a]	0.6[a]	5.7	5.3[a]	3.3[a]
Manpower Utilization Rate2/	80.2	-1.7	-3.4	79.6	-0.7	-3.8
NONAGRICULTURAL WAGE AND SALARIED POSITIONS						
Employment*	1698.6	-1.4	-3.5	89280	-0.8	-2.3
Mining	6.1	-47.4	-61.4	1087	-5.7	-7.8
Construction	62.2	-2.2	-6.5	3904	-1.3	-5.9
Manufacturing	344.4	-1.1	-5.1	18684	-2.0	-8.0
Durables	205.4	-1.8	-6.1	11007	-2.6	-10.0
Nondurables	139.0	-0.2	-3.7	7677	-1.2	-5.1
Trans., Comm., & Public Utilities	92.7	-0.7	-6.2	5030	-1.2	-2.7
Trade	428.3	-0.7	-3.0	20549	-0.3	-0.5
Fin., Ins., & Real Estate	97.5	-0.5	0.2	5362	0.4	0.8
Services	390.2	0.9	2.0	19046	0.5	2.1
Government	277.2	-4.6	-5.9	15618	-1.4	-1.9
Average Weekly Hours*						
Mining	37.3	1.1	-3.3	42.2	-1.2	-3.9
Construction	36.5	-1.1	2.5	37.5	0.8	1.4
Manufacturing	38.9	-1.3	-1.3	38.9	-0.5	-2.3
Durables	39.6	-1.5	-1.0	39.3	-0.8	-2.2
Nondurables	38.1	-0.5	-1.0	38.5	0.0	-1.5
Trans., Comm., & Public Utilities	38.0	-1.8	-1.3	39.2	0.8	-0.8
Trade	29.3	-0.3	-2.3	32.0	0.3	-0.6
Fin., Ins., & Real Estate	n.a	n.a	n.a	36.1	-0.3	-0.3
Services	n.a	n.a	n.a	32.7	0.0	0.6
Average Hourly Wage						
Mining	12.50	-5.9	-3.6	10.94	2.1	7.7
Construction	14.31	0.6	8.9	11.62	1.9	6.4
Manufacturing	9.11	0.6	8.5	8.55	1.1	5.9
Durables	9.21	2.3	9.1	9.12	1.3	5.8
Nondurables	8.98	-1.8	7.7	7.78	1.4	7.0
Trans., Comm., & Public Utilities	10.38	1.5	5.7	10.39	2.2	5.7
Trade	6.92	1.9	6.1	6.22	0.5	4.4
Fin., Ins., & Real Estate	n.a	n.a	n.a	6.85	2.1	7.9
Services	n.a	n.a	n.a	6.91	1.2	7.6
Estimates of Labor Turnover (Mfg. Only)	Estimates of Labor Turnover have been discontinued as of January 1, 1982.					

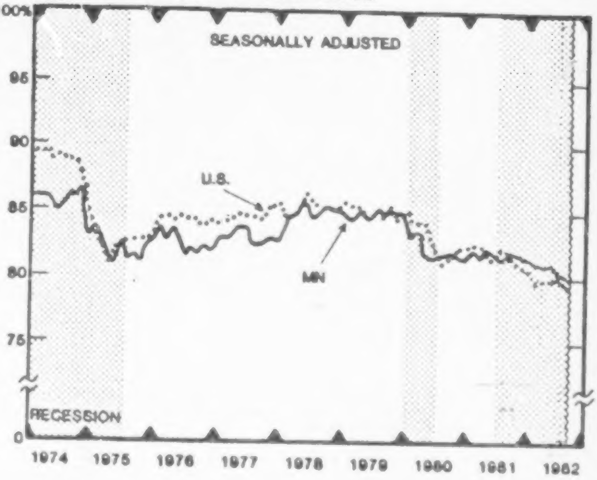
a/ Values are numerical values, not percent changes.

Labor Market Conditions

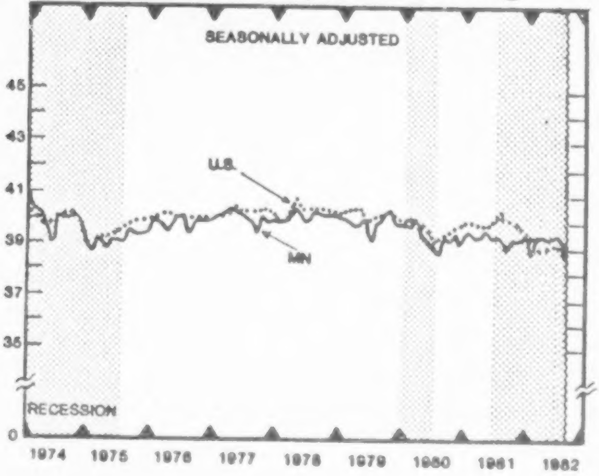
Ratio of Service to Goods Producing Jobs



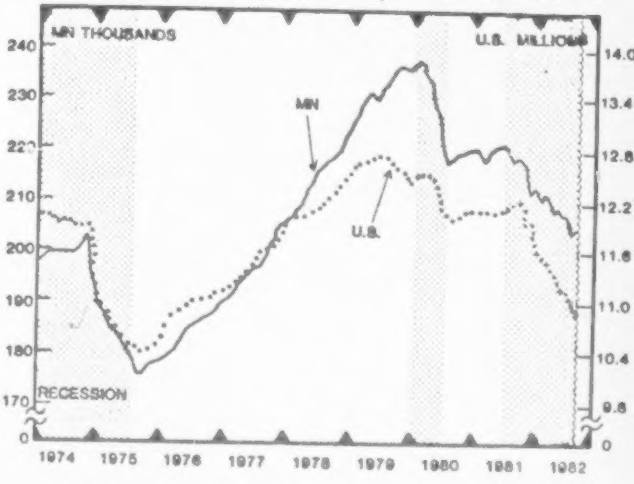
Manpower Utilization Rate



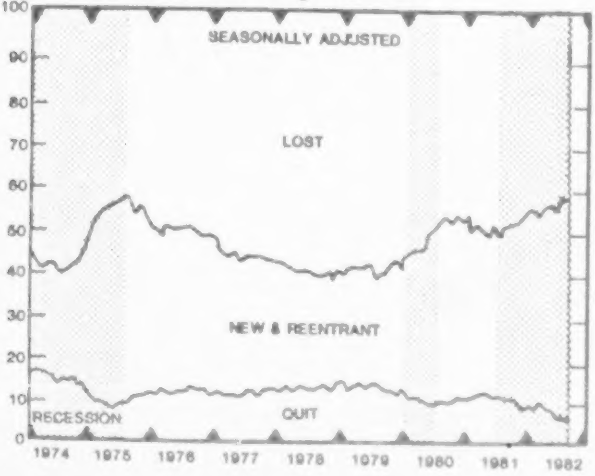
Average Weekly Hours, Manufacturing



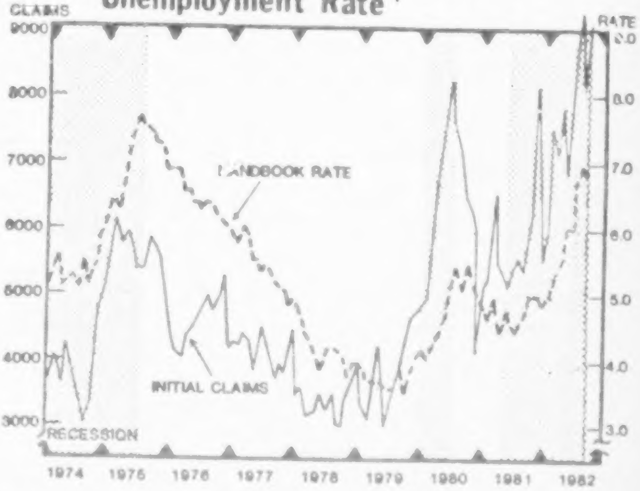
Manufacturing Employment, Durable Goods



U.S. Unemployment: Percent Distribution by Reason



MN Weekly Initial Claims & Handbook Unemployment Rate[1]



Labor Market Conditions

The Table below provides data on persons who file claims for unemployment compensation in Minnesota. Only those claiming benefits from the regular State program are represented, since data on the characteristics of Federal employees and veterans are not available, and data on those receiving benefits from extended programs is reported only when those programs are in effect. If those receiving extended benefits were included they would distort the numerical comparisons over time, but would not substantially change the percentage distributions other than to increase the proportion of long-term unemployed.

Persons Claiming Benefits	Third Quarter 1982			October 1982			Percent Long Term
	Number	Percent Change From		Number	Percent Change From		
		Last Qtr.	Year Ago		Month Ago	Year Ago	
By Age & Sex							
Male	40018	-9.8	95.8	37141	0.7	80.4	33.6
Under 45	31383	-12.0	90.9	28804	0.4	70.9	32.8
Under 25	8032	-30.0	46.9	7342	3.9	24.2	24.3
25-34	15791	-6.0	107.9	14385	-0.6	86.0	35.6
35-44	7560	2.0	123.7	7077	-1.0	120.5	36.1
45 and Over	8635	-0.6	115.9	8337	1.8	123.4	36.3
45-54	4860	-1.3	123.6	4764	3.0	136.1	35.3
55 and Over	3775	0.4	106.7	3573	0.4	108.5	37.7
Female	20520	7.7	71.2	17193	-0.7	48.0	35.0
Under 45	15540	7.3	72.8	13143	-0.9	50.5	34.0
Under 25	4049	-7.5	53.4	3569	1.7	39.0	26.3
25-34	6921	11.1	74.7	5861	-1.1	56.6	36.7
35-44	4570	17.9	90.8	3713	-3.2	53.2	37.2
45 and Over	4980	8.7	66.3	4050	-0.1	40.7	38.0
45-54	2898	10.6	[illegible].7	2357	-0.1	37.8	35.8
55 and Over	2082	6.2	73.2	1693	0.0	44.9	41.1
By Industry	60538	-4.5	86.7	54334	0.3	68.7	34.0
Ag., For., Fish.	479	-38.5	44.3	556	21.7	49.1	13.7
Mining	7913	109.2	3416.9	6775	-7.5	284.1	64.6
Construction	5985	-52.2	19.9	5897	5.0	48.9	17.0
Manufacturing	19633	-7.2	102.0	17892	0.6	84.3	30.6
Pub. Utilities	2394	-26.0	60.1	1911	3.0	38.8	29.0
Wholesale Trade	3783	-5.3	61.4	3637	1.0	90.9	30.5
Retail Trade	5983	-9.0	39.1	5620	2.5	44.8	29.3
Fin., Ins., Real Est.	1330	-4.0	61.4	1236	-1.6	38.9	35.6
Services	11750	35.4	65.2	9359	-3.1	34.0	38.3
Public Admin.	788	-18.6	-5.9	933	28.0	-19.1	22.8
Inf. Not Available	500	45.3	98.4	518	24.2	152.7	4.4
By Occupation	60538	-4.5	86.7	54334	0.3	68.7	34.0
Prof., Tech., Mgr.	9868	-43.1	84.6	8173	-4.2	70.8	42.3
Clerical	6812	12.0	57.3	6341	-0.3	42.3	33.0
Sales	2096	-1.8	48.8	1925	-2.8	48.5	33.0
Services	4139	3.2	54.6	3767	3.1	26.9	29.7
Farm., For., Fish.	322	-50.5	27.8	430	33.1	25.4	13.0
Processing	2761	-26.2	132.4	2189	-3.3	202.3	46.2
Machine Trade	5011	3.2	109.4	4802	0.4	97.3	30.2
Benchwork	6949	-1.7	103.2	6361	2.4	73.1	28.3
Structural Work	8740	-43.5	31.1	8532	6.6	51.8	19.6
Misc.	13656	10.7	195.5	11631	-2.4	101.4	44.2
Inf. Not Available	184	6.4	46.0	183	6.4	47.6	33.9
By Duration	60538	-4.5	86.7	54334	0.3	68.7	
0-14 Weeks	45777	1.0	84.3	35840	-5.2	38.4	
15+ Weeks (Long-Term)	14761	-18.3	94.4	18494	12.8	193.2	

Labor Market Conditions

Minnesota Nonagricultural Wage & Salary Employment, Hours, and Earnings

INDUSTRY	EMPLOYMENT[1/] (thousands)			PER CENT CHANGE FROM		PRODUCTION WORKERS' HOURS & EARNINGS: Average Weekly Earnings		Average Hourly Earnings		Average Weekly Hours	
	Oct. 1982	Sept. 1982	Oct. 1981	Sept. 1982	Oct. 1981	Oct. 1982	Sept. 1982	Oct. 1982	Sept. 1982	Oct. 1982	Sept. 1982
TOTAL NONAGRICULTURAL	1712.1	1714.9	1782.6	-0.2	-4.0						
MANUFACTURING	344.8	352.5	366.4	-2.2	-5.9	358.80	353.47	9.20	9.11	39.0	38.8
Durable Goods	203.4	205.9	218.7	-1.2	-7.0	367.35	364.98	9.30	9.24	39.5	39.5
Furniture, Lumber and Wood	13.9	14.6	15.0	-4.5	-7.1	370.74	374.23	9.68	9.67	38.3	38.7
Stone, Clay and Glass	8.0	8.4	9.1	-4.7	-12.1	359.33	356.96	9.12	9.06	39.4	39.4
Primary Metals	5.5	5.8	6.5	-4.1	-14.4	330.75	321.03	8.75	8.70	37.8	36.9
Fabricated Metals	32.7	32.8	33.6	-0.4	-2.8	436.07	419.52	10.61	10.41	41.1	40.3
Nonelectrical Machinery	79.7	81.0	85.9	-1.5	-7.2	367.70	369.72	9.38	9.36	39.2	39.5
Electrical Machinery	26.0	25.7	26.9	1.0	-3.6	314.70	316.32	8.09	8.09	38.9	39.1
Transportation Equipment	6.0	6.0	6.5	0.1	-7.8	385.31	380.72	9.73	9.59	39.6	39.7
Other Durable Goods 2/	31.6	31.7	35.2	-0.2	-10.1	339.49	337.85	8.53	8.51	39.8	39.7
Nondurable Goods	141.3	146.6	147.7	-3.6	-4.3	347.00	340.61	9.06	8.94	38.3	38.1
Food and Kindred	49.1	53.9	51.4	-8.8	-4.4	319.17	304.87	8.29	7.96	38.5	38.3
Textile and Apparel	5.6	5.7	7.5	-2.0	-25.0	212.18	205.28	5.96	6.02	35.6	34.1
Paper and Allied	31.0	31.4	32.0	-1.4	-3.1	420.85	420.85	10.19	10.19	41.3	41.3
Printing and Publishing	34.9	34.8	34.6	0.4	0.8	361.58	364.03	10.10	10.14	35.8	35.9
Chemical and Petroleum	9.1	9.1	9.5	-0.3	-3.9	393.03	392.00	9.90	10.00	39.7	39.2
Rubber and Leather	11.6	11.7	12.7	-1.0	-9.3	282.92	278.10	7.73	7.79	36.6	35.7
NONMANUFACTURING	1367.4	1362.4	1416.2	0.4	-3.5						
Mining and Quarrying	6.7	6.4	16.2	3.9	-58.6	502.65	503.93	12.79	12.79	39.3	39.4
Metal Mining	4.6	4.3	14.1	6.6	-67.2	529.98	563.33	14.56	14.67	36.4	38.4
Construction	69.8	71.2	76.3	-2.0	-8.5	533.74	513.72	14.12	14.39	37.8	35.7
Building	19.8	20.2	21.6	-2.1	-8.2	499.90	479.50	12.72	13.03	39.3	36.8
Highway and Heavy	13.6	14.4	14.9	-5.6	-8.3	472.82	447.60	11.85	12.68	39.9	35.3
Special Trades	36.4	36.6	39.8	-0.5	-8.6	574.86	558.27	15.88	15.86	36.2	35.2
Transportation	60.7	60.2	64.5	0.8	-5.9						
Railroads	12.5	12.7	15.3	-1.6	-18.3	456.86	456.86	10.13	10.13	45.1	45.1
Trucking and Warehousing	23.6	23.4	24.3	0.9	-2.6	430.92	428.13	11.97	11.54	36.0	37.1
Public Utilities	32.8	33.5	34.5	-2.0	-4.9	468.47	466.88	11.86	11.79	39.5	39.6
Communications	19.0	19.3	20.0	-1.6	-5.0	437.63	438.36	11.25	11.24	38.9	39.0
Elec., Gas and Sanitary	13.9	14.2	14.6	-2.5	-4.8	503.26	500.12	12.55	12.41	40.1	40.3
Trade	425.8	432.8	442.4	-1.6	-3.8	207.01	207.90	6.97	7.00	29.7	29.7
Retail	314.8	319.8	324.2	-1.6	-2.9	164.07	163.68	6.01	6.04	27.3	27.1
General Merchandise	44.9	43.4	48.0	3.4	-6.5	159.33	165.86	5.63	5.68	28.3	29.2
Food Stores	44.2	45.9	45.7	-3.6	-3.2	210.73	210.09	7.42	7.45	28.4	28.2
Automotive	33.4	34.0	34.4	-1.5	-2.7	236.94	237.00	7.18	7.16	33.0	33.1
Eating and Drinking	105.0	108.9	107.3	-3.5	-2.1	86.05	84.05	4.04	4.10	21.3	20.5
Wholesale	111.0	113.0	118.3	-1.8	-6.2	354.71	356.74	9.31	9.29	38.1	38.4
F.I.R.E.	97.0	98.1	98.1	-1.1	-1.1						
Finance	46.0	46.6	45.8	-1.1	0.5						
Insurance	35.3	35.3	35.5	-0.3	-0.8						
Real Estate	15.7	16.2	16.8	-2.7	-6.2						
Service Industries	392.3	393.0	388.5	-0.2	1.0						
Hotel and Lodging	19.9	21.4	21.4	-7.1	-7.0						
Business Services	59.5	58.5	59.3	1.8	0.3						
Health Services	133.5	134.0	131.3	-0.4	1.7						
Private Education	25.0	22.0	23.5	13.6	6.3						
Soc. Serv., Museums etc.	85.2	85.2	83.8	0	1.8						
Government	282.2	267.2	295.7	5.6	-4.6						
Federal	30.4	30.6	30.9	-0.8	-1.6						
State	71.3	64.1	73.9	11.3	-3.5						
Local	180.5	172.5	191.0	4.7	-5.5						

1/ Totals may not add because of rounding.
2/ Includes Scientific Instruments and Miscellaneous Industries.

Labor Market Conditions

Labor Force Data: State, SMSAs, and Counties

Area or County	October, 1982 Prelim. Labor[1/] Force	October, 1982 Prelim. Unemp.	October, 1982 Prelim. Un. Rate
State of Minnesota	2166696	165488	7.6
Metropolitan Areas			
Duluth/Superior (Duluth City Only)	36088	3909	10.8
Fargo/Moorhead (Clay County, MN Only)	28203	1587	5.6
Minneapolis/St. Paul SMSA[2/]	1169027	79013	6.8
Rochester SMSA (Olmsted Co.)	58697	3502	6.0
St. Cloud SMSA[3/]	77176	6572	8.5
Counties			
Aitkin	5221	631	12.1
Anoka	110565	7376	6.7
Becker	12601	1154	9.2
Beltrami	16186	1347	8.3
Benton	11980	1087	9.1
Big Stone	4031	250	6.2
Blue Earth	29310	1707	5.8
Brown	15592	973	6.2
Carlton	11857	1250	10.5
Carver	20771	1267	6.1
Cass	10260	923	9.0
Chippewa	7332	530	7.2
Chisago	14532	993	6.8
Clay	28203	1587	5.6
Clearwater	3887	497	12.8
Cook	2269	213	9.4
Cottonwood	7350	333	4.5
Crow Wing	16979	1538	9.1
Dakota	109420	7225	6.6
Dodge	8483	635	7.5
Douglas	13450	974	7.2
Faribault	10893	637	5.8
Fillmore	12176	698	5.7
Freeborn	18112	1183	6.5
Goodhue	19571	1269	6.5
Grant	3396	134	3.9
Hennepin	531889	36256	6.8
Houston	10125	426	4.2
Hubbard	5680	539	9.5
Isanti	10285	951	9.2
Itasca	17371	3055	17.6
Jackson	7960	286	3.6
Kanabec	5783	559	9.7
Kandiyohi	18508	1062	5.7
Kittson	3390	166	4.9
Koochiching	7864	903	11.5
Lac qui Parle	5841	310	5.3

Area or County	October, 1982 Prelim. Labor[1/] Force	October, 1982 Prelim. Unemp.	October, 1982 Prelim. Un. Rate
Lake	4930	1767	35.8
Lake of the Woods	1830	131	7.2
Le Sueur	12531	1193	9.5
Lincoln	3825	155	4.1
Lyon	14963	759	5.1
McLeod	17123	1065	6.2
Mahnomen	2766	248	9.0
Marshall	6495	551	8.5
Martin	14414	879	6.1
Meeker	11261	740	6.6
Mille Lacs	9061	867	9.6
Morrison	13234	1550	11.7
Mower	17976	1176	6.5
Murray	6062	253	4.2
Nicollet	15096	887	5.9
Nobles	12277	571	4.7
Norman	4694	183	3.9
Olmsted	58697	3502	6.0
Otter Tail	24176	1541	6.4
Pennington	6429	488	7.6
Pine	9675	946	9.8
Pipestone	5633	272	4.8
Polk	15670	917	5.9
Pope	5667	396	7.0
Ramsey	260191	18124	7.0
Red Lake	2248	258	11.5
Redwood	11002	628	5.7
Renville	12279	635	5.2
Rice	23119	1763	7.6
Rock	5739	226	3.9
Roseau	5456	619	11.3
St. Louis (Inc. Duluth)	97169	20120	20.7
Scott	25011	1960	7.8
Sherburne	14358	1424	9.9
Sibley	8549	580	6.8
Stearns	50838	4061	8.0
Steele	16199	1046	6.5
Stevens	5879	241	4.1
Swift	6305	405	6.4
Todd	11888	853	7.2
Traverse	2807	104	3.7
Wabasha	9997	800	8.0
Wadena	6517	527	8.1
Waseca	9029	554	6.1
Washington	63509	3716	5.9
Watonwan	6633	374	5.6
Wilkin	4329	238	5.5
Winona	22791	1715	7.5
Wright	33139	2096	6.3
Yellow Medicine	8057	460	5.7

Technical Notes:

[1/] Labor force data is computed according to BLS methodology. The method includes an adjustment to assure that the sum of the substate areas equals the separately estimated State total. This adjustment is Applied to all county and SMSA areas. County and area unemployment was multiplied by an adjustment factor of 1.46 ; employment was multiplied by 1.02 . For a more detailed explanation see the Review of Labor and Economic Conditions, Vol. 4, No. 4, (February 1978 issue), p. 29.

[2/] Anoka, Carver, Chisago, Dakota, Hennepin, Ramsey, Scott, Washington, and Wright Counties.

[3/] Benton, Sherburne, and Stearns Counties.

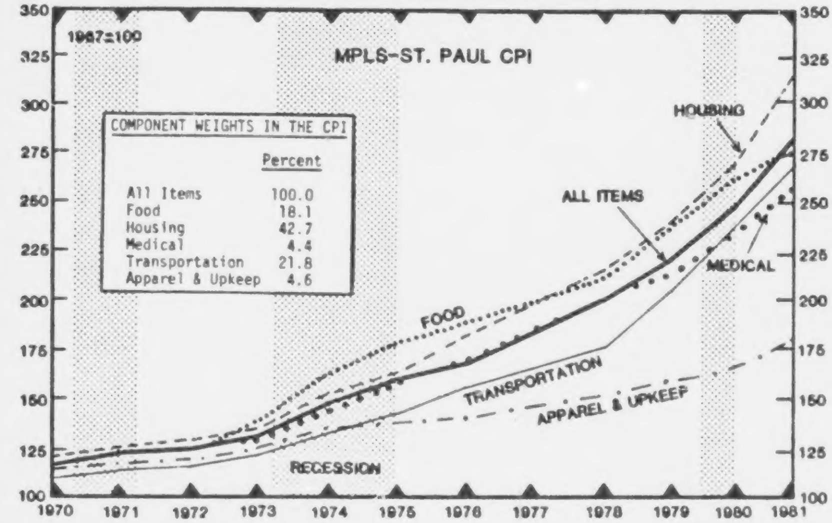
Income & Purchasing Power

This section describes how Minnesotans fare with respect to their ability to acquire goods and services needed to meet their needs and wants and how they compare with others in the United States in this respect. Real Per Capita Personal Income measures money income received by all individuals from wages and salaries, dividends, rent, professional and farm income, personal interest payments, and transfer payments, less personal contributions for social security, all adjusted for the price level as indicated by the CPI and for population. The Consumer Price Index (CPI) measures changes in the price of a representative combination of goods and services consumed by urban wage and salary workers relative to 1967. The inverse of the CPI (1/CPI) indicates the value of the dollar; when the CPI increases the value of the dollar falls. The change in the CPI over any period of time divided by the value at the beginning of the period gives the percentage change, or the rate of inflation.

Income And Purchasing Power	MINNESOTA			UNITED STATES		
	III Qtr 1982	Percent Change from		III Qtr 1982	Percent Change from	
		Last Qtr.	Year Ago		Last Qtr.	Year Ago
INCOME STATISTICS						
Personal Income 1/*						
Total Personal Income (in Billions)	48.1	0.4	6.2	2597.8	1.8	5.7
Due to Labor 2/	n.a	n.a	n.a	1725.0	35.3	50.5
Due to Property 3/	n.a	n.a	n.a	604.6	33.3	28.3
Due to Transfer Payments 4/	n.a	n.a	n.a	300.7	34.4	25.7
Total Disposable Personal Income	n.a	n.a	n.a	2202.3	2.4	6.9
As Percent of Total Pers. Inc.	n.a	n.a	n.a	84.8	0.6	1.2
Per Capita Personal Income 5/						
Current dollar Value	11641	0.2	5.5	11187	1.5	4.7
Real (1967) Dollar Value	3746	-2.5	-2.9	3827	-0.4	-0.9
Real Median Family Money Income 5/*						
All Families	8668	-2.4	-3.4	8548	-0.6	-1.2
Four Person Families	8988	-2.3	-3.6	9966	-0.5	-1.1
Earnings of Production Workers in Mfg. 6/						
Average Weekly Earnings	353.90	-0.3	7.2	332.59	0.8	3.9
Real Average Weekly Earnings 7/	113.87	-3.0	-1.3	113.78	-1.1	-1.6
Income Related Criteria 8/						
Standard Budgets						
Low	15118	—	7.8	15323	—	9.1
Moderate	25799	—	9.2	25407	—	9.8
High	38698	—	9.7	38060	—	10.6
Poverty Level Income						
Urban Family of Four	9300	—	10.1	9300	—	10.1
Nonurban Family of Four	7910	—	10.0	7910	—	10.0
MEASURES OF PRICE CHANGE AND INFLATION						
Consumer Price Level (CPI) 9/	310.8	2.7	8.7	292.3	1.9	5.6
Food	289.5	1.6	3.7	287.9	0.7	3.7
Housing	373.4	3.3	13.0	319.9	2.0	6.6
Transportation	283.4	2.9	4.4	297.6	3.1	4.3
Medical	295.2	3.7	12.1	331.1	2.7	11.0
Purchasing Power of the Dollar (1/CPI)	.32	-2.7	-8.0	.34	-2.0	5.3
Wholesale Price Index	n.a	n.a	n.a	300.2	0.5	1.4
Industrial Commodities	n.a	n.a	n.a	313.1	1.0	2.0

Income & Purchasing Power

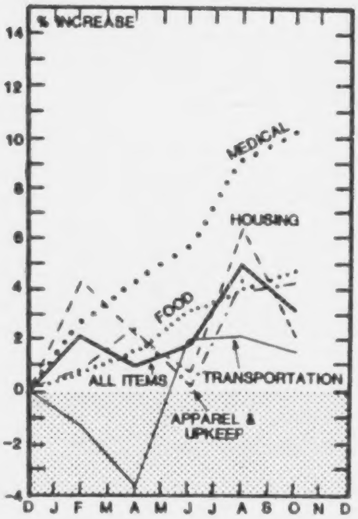
Consumer Price Index- Major Components



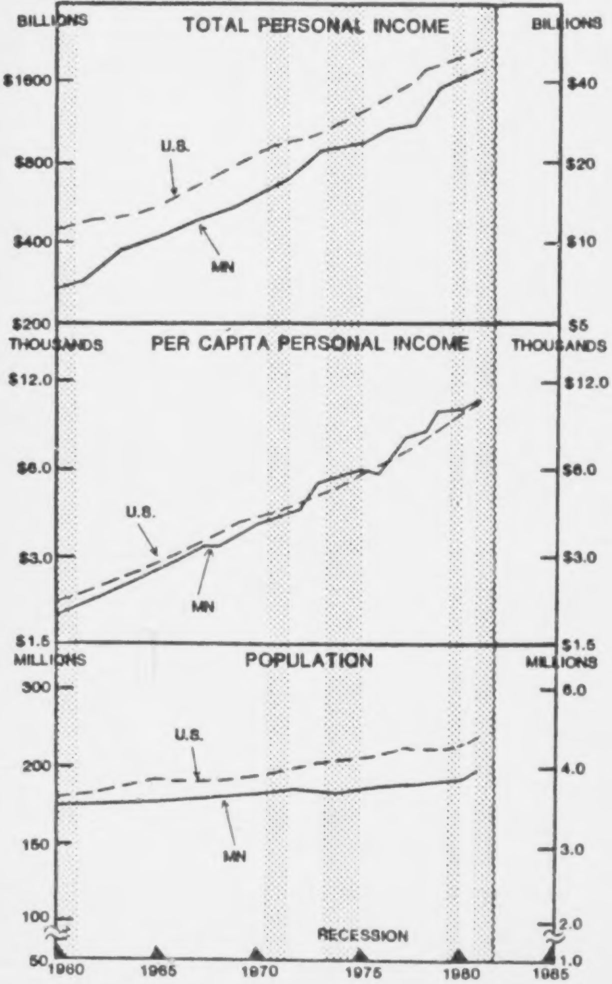
COMPONENT WEIGHTS IN THE CPI

	Percent
All Items	100.0
Food	18.1
Housing	42.7
Medical	4.4
Transportation	21.8
Apparel & Upkeep	4.6

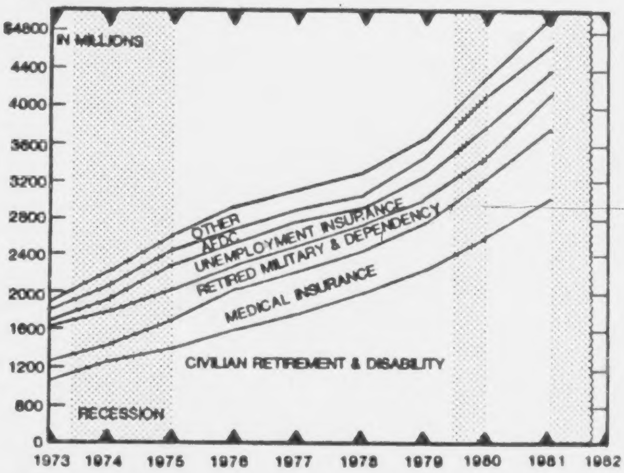
% △ From Dec. 1981



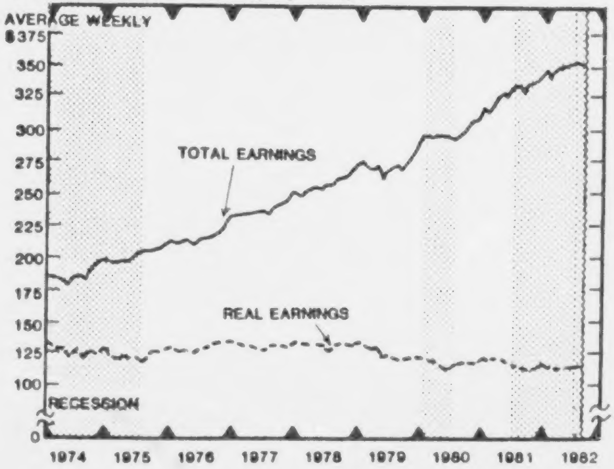
U.S. & MN Personal Income And Population



Government Transfer Payments To Individuals In Minnesota



Minnesota Earnings, Mfg.



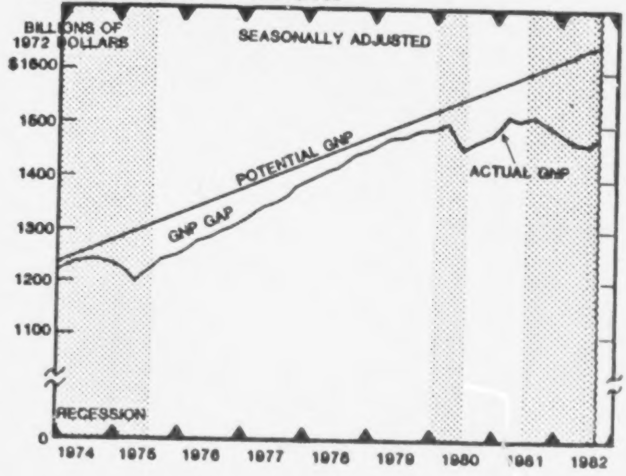
Output, Expenditures, Money, & Credit Conditions

The overall level and composition of National Output shape labor market conditions, and nominal and real earnings. (Nominal values are not adjusted for inflation; real values are adjusted for inflation.) Personal Consumption Expenditures, especially on Durable Goods, together with data on Retail Sales, are frequently used as indicators of future levels of employment. The number of Building Permits influences the level of employment in construction and related industries. The Federal Budget Deficit is a key indicator of the stimulatory effect of government policy. Whether this effect results in inflation, improved employment conditions, or some combination of the two, depends in part, upon the degree to which present productive capacity is utilized. Present and anticipated Money and Credit Conditions determine the ability of consumers, business, and State and Local governments to borrow in order to finance purchases, which, in turn, generate income and employment. Unfortunately, most data of this kind is available only for the Nation. However, in an economy as interdependent as ours, analysis of the directions of change of key national indicators is a useful tool for understanding the course of the State economy.

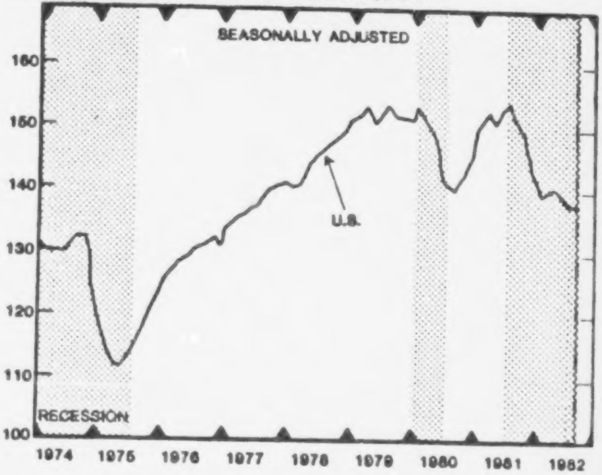
Output, Expenditure, Money, And Credit Conditions	MINNESOTA			UNITED STATES		
	III Qtr. 1982	Percent Change from		III Qtr 1982	Percent Change from	
		Last Qtr.	Year Ago		Last Qtr.	Year Ago
OUTPUT AND EXPENDITURE						
Retail Sales (in millions of dollars)	1643	0.2	3.2	89163	0.1	1.7
Private Housing Units Authorized by Building Permits 1/	16524	-0.1	3.7	996	8.6	12.5
Index of Industrial Production 2/	n.a	n.a	n.a	138.1	-0.9	-9.7
Gross National Product (in billions of 1972 dollars)* 3/	n.a	n.a	n.a	1481.2	0.2	-1.9
Personal Consumption Expenditures	n.a	n.a	n.a	958.4	0.4	0.7
Durable Goods	n.a	n.a	n.a	136.8	-1.1	-3.8
As Percent of Pers. Cons.	n.a	n.a	n.a	14.3	-1.4	-4.0
Nondurable Goods	n.a	n.a	n.a	366.9	0.7	1.1
Services	n.a	n.a	n.a	454.6	0.5	1.8
Gross Private Domestic Investment	n.a	n.a	n.a	202.1	-0.1	-13.4
As Percent of GNP	n.a	n.a	n.a	13.6	-0.7	-12.3
Nonresidential, Fixed	n.a	n.a	n.a	161.0	-3.4	-7.4
Residential	n.a	n.a	n.a	40.5	1.0	-5.6
Net Exports	n.a	n.a	n.a	30.7	-14.0	-21.7
Government Purchases	n.a	n.a	n.a	290.0	1.6	1.3
Federal	n.a	n.a	n.a	115.3	4.5	4.2
State and Local	n.a	n.a	n.a	174.7	-0.2	-0.6
GNP Gap (Full Empl. Minus Present GNP)						
1972 Dollars (in billions)	n.a	n.a	n.a	165.4	6.0	86.7
Current Dollars (in billions)	n.a	n.a	n.a	345.2	7.4	97.4
Current Federal Budget Deficit 4/						
As Percent of GNP	n.a	n.a	n.a	-5.0	-3.9	-2.0
Inventory to Sales: Durable Goods in Mfg.	n.a	n.a	n.a	2.37	0.4	8.7
New Orders to Shipments: Durable Goods	n.a	n.a	n.a	.96	-0.4	-4.6
Plant Capacity Utilization Rate in Mfg. 5/	n.a	n.a	n.a	69.6	-1.0	-12.2
MONEY AND CREDIT CONDITIONS						
Interest Rates						
Discount Rate	10.83	-9.8	-22.6	10.83	-9.8	-22.6
Prime Rate	n.a	n.a	n.a	14.72	-10.8	27.6
Rate on Conventional Mortgages	14.31	0.0	-1.4	15.49	-2.5	0.5
Federal Funds Rate	n.a	n.a	n.a	11.01	-24.2	-37.4
Consumer Installment Credit Outstanding	n.a	n.a	n.a	334076	1.3	3.0
As Percent of Disposable Personal Income	n.a	n.a	n.a	15.2	-1.1	-3.7

Output, Expenditures, Money, & Credit Conditions

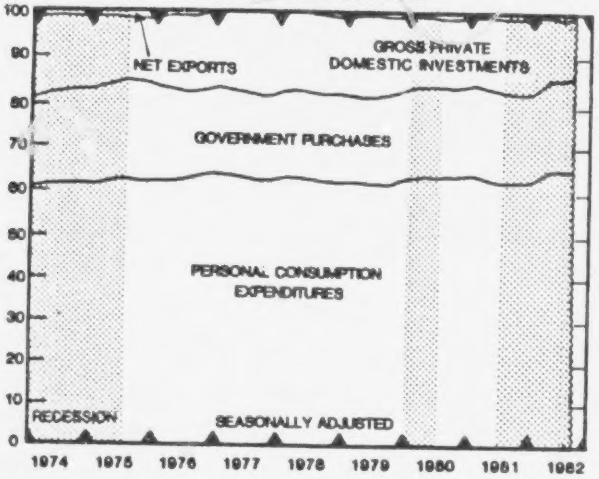
Potential & Actual GNP



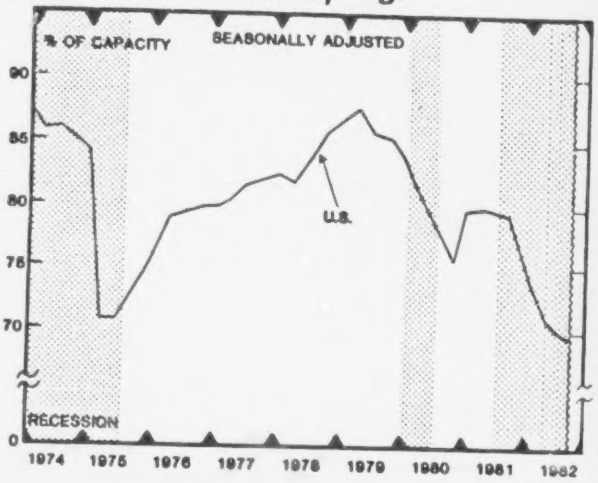
Index of Industrial Production [1]



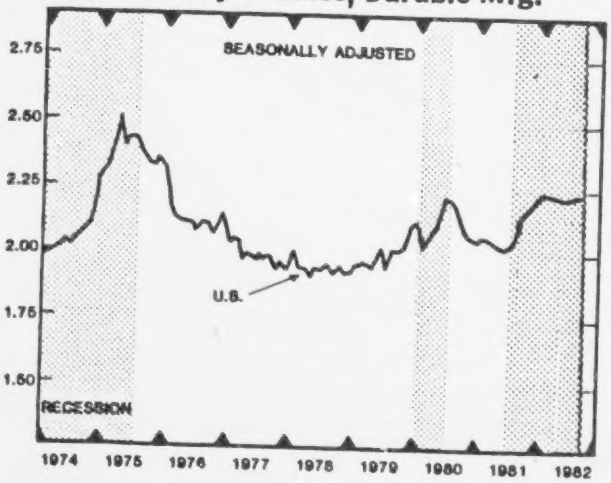
Composition of GNP in Percent



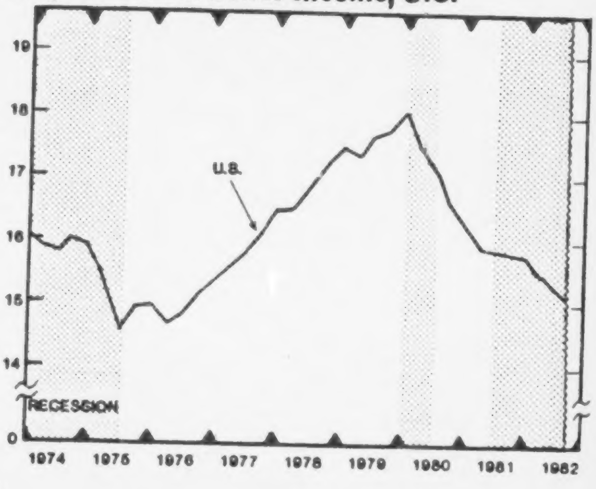
Plant Utilization Rates, Mfg.[1]



Ratio, Inventory to Sales, Durable Mfg.



Ratio, Consumer Installment Debt to Disposable Personal Income, U.S.



Technical Notes

For the reader's convenience the notes which follow are organized in sequence for the pages which appear in the statistical section. Each note corresponds to the footnote or reference notation for the given page.

* Wherever an asterisk appears the data is seasonally adjusted.

Page S-2

1/ Four percent is a generally agreed upon criteria for measuring full employment. It allows for the movement of persons between jobs. Labor Force Unemployment Rate less four percent, based on officical estimates.
2/ Estimated worker hours expended in nonfarm payroll employment as a percent of potential worker hours assuming that each member of the nonfarm labor payroll labor force was employed at a standard rate of 40 hours per week.

Page S-3

1/ The handbook unemployment rate is the estimate of unemployment prior to the Current Population Survey (CPS) adjustment.

Page S-7

1/ In billions of dollars at an annual rate.
2/ The contribution to total Personal Income of wages, salaries, and other labor income. Percent change entry in Labor Income Impact is the percent that the change in labor income comprises of the change in total Personal Income. The is not available for Minnesota on a quarterly basis.
3/ The figure for the quarter is the contribution to total Personal Income of proprietor's rental, dividend, and interest income. The percent change entry in Property Income Impact is analogous to the Labor Income Impact described in 2/ above.
4/ The contribution to total Personal Income of transfer payments (unemployment compensation, AFDC, etc.) The percent change entry is analogous to the Labor Income Impact in 2/ above.
5/ In dollars at an annual rate.
6/ In dollars per week.
7/ Real average weekly earnings are the average weekly earnings of production workers in manufacturing divided by the CPI.
8/ Annual data.
9/ Value is revised CPI. (See "Program Notes," P. 6, First Quarter 1978 Review.)

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1/ U. S. data annualized in thousands. Source: Bureau of the Census.
2/ Base Year is 1967. Source: Federal Reserve Board
3/ Totals may not add due to rounding.
4/ Values shown in percent change columns are deficit as percent of GNP for period citied.
5/ Source: Federal Reserve Board.

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1/ Source: Federal Reserve Board.

Available Publications

Nonagricultural Wage & Salary Employment, Hours & Earnings, January 1974 - January 1982, Minnesota (June 1982)

Employment, Hours, and Earnings, 1970-1982, Minneapolis-St. Paul Area (June 1982)

1980 Occupational Employment Statistics in Minnesota (May 1982)

Minneapolis-St. Paul SMSA Employment Outlook to 1985 (March 1982)

Review of Labor and Economic Conditions and its Monthly Supplement (Recent Issues)

Statistical Supplement to the Annual Report of the Department of Economic Security (September 1981)

Unemployment Compensation Program Statistics: Total Wages, Taxable Wages, Contributions Due, and Benefits Paid, 1950-1978 (April 1980)

Minnesota Employment and Wage data by County (First Quarter 1982) Limited number available for 1975-1981

Average Covered Employment & Wages by Economic Region for the Calendar Year 1981 by two Digits of Industry (also available for 1976-1980)

Occupational Hiring Patterns in Minnesota (October 1981)

Characteristics of Unemployment Insurance Claimants, 1981 (March 1982)

The Economic Outlook for 1982 (February 1982)

Minnesota Labor Market Information Directory (April 1982)

1982 Minnesota Salary Survey by Area (August 1982)

1982 Minnesota Hospitals and Nursing Homes Salary Survey (September 1982)

1982 Minnesota Wage Data by Industry and Size of Firm (September 1982)

Labor Market Information Summary for 1982 for Minnesota (August 1982), Minneapolis-St. Paul SMSA (May 1982), St. Cloud SMSA (May 1982), Duluth SMSA (August 1982), and Rochester SMSA (August 1982)

These publications are available upon request while supply lasts.

Write to: Director, Research and Statistical Services Office
Minnesota Department of Economic Security
390 North Robert Street
St. Paul, Minnesota 55101

CURRENT MINNESOTA LABOR MARKET CONDITIONS

S4160-3

December, 1982 Supplement to The Review of Labor and Economic Conditions
Prepared by the Research and Statistical Services Office, MN Dept. of Economic Security, 390 N. Robert St., St. Paul MN 55101, in cooperation with the U.S. Department of Labor, Bureau of Labor Statistics, and Employment and Training Admin.

Nation

Although there were some encouraging signs in the economic statistics for November, the Nation's economy was still quite depressed. Further declines in industrial production and nonfarm payroll employment together with a small rise in personal income suggest that the recession had not ended.

Employment conditions continued to be dismal in November. The seasonally adjusted unemployment rate rose to 10.8 percent in November, up from 10.4 percent in October and a third quarter average of 9.9 percent. Although total employment (seasonally adjusted) showed little change in November, seasonally adjusted nonagricultural wage and salary employment fell by 163,000. Over 60 percent of the November decline in payroll jobs was in the durable goods manufacturing industries.

Other developments in November show a mixed picture. The surge in housing starts and the drop in the discount rate were genuine positive signs, but the increases in retail sales and personal consumption expenditures were largely the result of a strong rise in auto sales which was spurred by cut-rate financing. Also, industrial production continued to decline and personal income rose very slowly. However, many economists expect some recovery in the first half of 1983 as interest rates fall further and spending by consumers picks up.

State

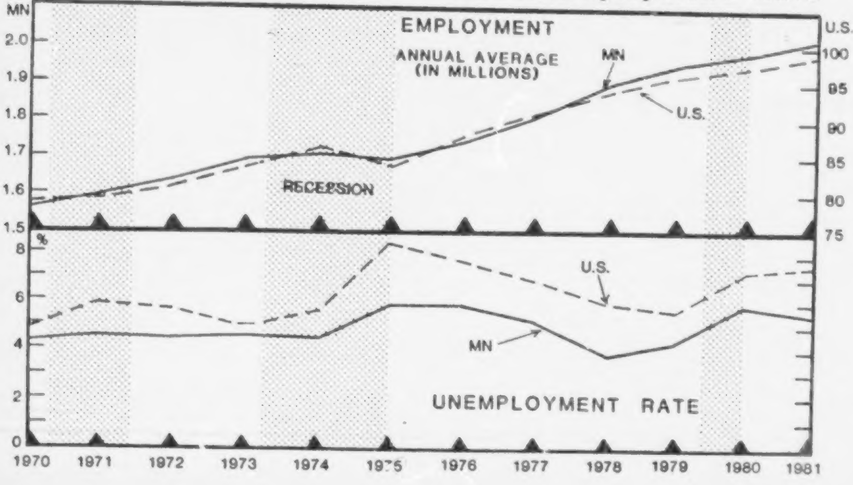
After appearing to stabilize in September, the Minnesota economy deteriorated in October and November. The unemployment rate rose while both total employment and nonagricultural wage and salary employment continued to decline.

Minnesota's seasonally unadjusted unemployment rate rose a full percentage point to 8.6 percent in November after a 0.4 of a point rise in October. Although Department analysts believe that the rates in both October and November were too high, it is impossible to estimate the amount of over-statement. The slightly larger than normal drop in unadjusted total employment in November was not thought to have been an exaggeration. Meanwhile, seasonally adjusted nonagricultural wage and salary experienced its sharpest decline in November since last April. Nearly half of the November decrease in wage and salary employment was in the durable goods manufacturing industries. In September it had appeared that employment in durable goods manufacturing had ended its almost steady decline that began in October, 1981.

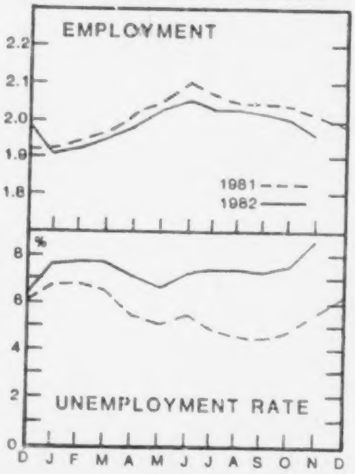
There were, however, some signs in November that the Minnesota economy might show some improvement in the coming months. Seasonally adjusted average weekly initial claims for unemployment benefits, an indicator of future unemployment, fell 34 percent in November. Also in November, the average workweek in manufacturing, also seasonally adjusted, rose for the second straight month, climbing to 39.2 hours from 39.0 in October and 38.6 in September. The claim load and hours worked statistics are probably reflective of business adopting a wait-and-see posture before making any new adjustments in their work force.

Labor Force Estimates	MINNESOTA (Numbers in '000's)			UNITED STATES (Numbers in '000,000's)		
	Nov. 1982	Change From Last Mo.	Change From Year Ago	Nov. 1982	Change From Last Mo.	Change From Year Ago
Civilian Labor Force	2153.7	-11.3	18.9	110.9	0.1	1.7
Employed	1969.1	-30.4	-50.5	99.4	-0.5	-1.1
Unemployed	184.6	19.1	69.4	11.5	0.6	2.8
Unemployment Rate						
Actual	8.6	1.0	3.2	10.4	0.5	2.5
Seasonally Adjusted	n.a	n.a	n.a	10.8	0.4	2.5

MN and the U.S., Employment & Unemployment Rate



MN, 1981 and 1982



Minnesota Nonagricultural Wage & Salary Employment, Hours, and Earnings

INDUSTRY	EMPLOYMENT[1/] (thousands)			PER CENT CHANGE FROM		PRODUCTION WORKERS' HOURS & EARNINGS: Average Weekly Earnings		Average Hourly Earnings		Average Weekly Hours	
	Nov. 1982	Oct. 1982	Nov. 1981	Oct. 1982	Nov. 1981	Nov. 1982	Oct. 1982	Nov. 1982	Oct. 1982	Nov. 1982	Oct. 1982
TOTAL NONAGRICULTURAL	1700.0	1710.1	1769.5	-0.6	-3.9						
MANUFACTURING	335.3	342.0	357.3	-2.0	-6.2	363.78	360.89	9.28	9.23	39.2	39.1
Durable Goods	198.7	202.3	214.0	-1.8	-7.1	370.00	370.94	9.32	9.32	39.7	39.8
Furniture, Lumber and Wood	13.4	13.7	13.9	-2.4	-3.7	371.51	370.33	9.70	9.72	38.3	38.1
Stone, Clay and Glass	8.0	8.4	8.7	-4.1	-7.6	353.75	357.35	9.26	9.21	38.2	38.8
Primary Metals	5.4	5.5	6.5	-1.0	-16.1	326.34	325.99	8.82	8.67	37.0	37.6
Fabricated Metals	32.1	32.7	33.6	-1.8	-4.5	435.07	442.02	10.56	10.60	41.2	41.7
Nonelectrical Machinery	78.0	78.9	85.5	-1.2	-8.9	376.11	371.70	9.45	9.41	39.8	39.5
Electrical Machinery	25.5	25.6	25.7	-0.4	-0.8	322.26	317.52	8.20	8.10	39.3	39.2
Transportation Equipment	4.8	5.9	5.2	-19.4	-7.4	359.72	383.18	9.20	9.80	39.1	39.1
Other Durable Goods 2/	31.6	31.7	34.9	-0.2	-9.4	347.04	348.80	8.59	8.57	40.4	40.7
Nondurable Goods	136.6	139.7	143.3	-2.2	-4.7	355.36	348.91	9.23	9.11	38.5	38.3
Food and Kindred	45.5	47.6	47.3	-4.5	-3.8	336.26	318.97	8.60	8.35	39.1	38.2
Textile and Apparel	5.3	5.5	7.2	-4.5	-26.0	203.58	211.41	5.85	5.84	34.8	36.2
Paper and Allied	31.1	31.1	32.0	0	-2.7	435.08	435.08	10.31	10.31	42.2	42.2
Printing and Publishing	34.6	34.8	34.9	-0.7	-0.8	353.29	354.35	9.98	10.01	35.4	35.4
Chemical and Petroleum	8.8	9.1	9.5	-2.8	-6.7	378.18	389.46	9.90	9.91	38.2	39.3
Rubber and Leather	11.2	11.5	12.6	-2.1	-10.7	292.93	283.69	7.96	7.73	36.8	36.7
NONMANUFACTURING	1364.7	1368.1	1412.2	-0.2	-3.4						
Mining and Quarrying	6.3	6.6	14.2	-4.4	-55.6	477.48	494.08	12.87	12.80	37.1	38.6
Metal Mining	4.4	4.5	12.3	-3.4	-64.4	530.31	517.19	14.69	14.61	36.1	35.4
Construction	64.5	68.7	72.1	-6.2	-10.6	480.56	524.66	14.26	14.18	33.7	37.0
Building	18.3	19.4	21.3	-5.6	-14.1	484.66	500.74	12.89	13.04	37.6	38.4
Highway and Heavy	11.6	13.5	12.4	-14.5	-6.6	356.90	456.54	11.74	11.92	30.4	38.3
Special Trades	34.6	35.9	38.4	-3.5	-9.9	514.51	562.78	15.88	15.72	32.4	35.8
Transportation	60.1	60.7	63.9	-1.1	-5.9						
Railroads	12.5	12.6	15.0	-1.3	-16 9	472.53	472.53	9.99	9.99	47.3	47.3
Trucking and Warehousing	23.3	23.5	24.2	-0.9	-3.7	434.25	432.12	11.93	11.97	36.4	36.1
Public Utilities	33.1	33.2	34.5	-0.3	-3.9	464.51	463.34	11.83	11.85	39.1	39.1
Communications	19.0	19.1	19.9	-0.6	-4.3	429.31	429.31	11.18	11.18	38.4	38.4
Elec., Gas and Sanitary	14.1	14.1	14.6	0.1	-3.5	506.00	503.60	12.65	12.59	40.0	40.0
Trade	428.9	427.4	443.1	0.4	-3.2	207.98	207.31	7.05	6.98	29.5	29.7
Retail	318.6	316.3	326.2	0.7	-2.3	165.51	164.62	6.13	6.03	27.0	27.3
General Merchandise	46.9	44.8	50.0	4.8	-6.2	160.15	159.05	5.74	5.66	27.9	28.1
Food Stores	44.9	44.5	45.4	1.0	-1.1	209.91	211.30	7.47	7.44	28.1	28.4
Automotive	33.5	33.7	34.1	-0.7	-1.8	244.76	240.64	7.35	7.27	33.3	33.1
Eating and Drinking	104.8	105.7	106.7	-0.8	-1.8	90.71	88.34	4.34	4.09	20.9	21.6
Wholesale	110.4	111.2	116.9	-0.7	-5.6	356.02	351.54	9.32	9.30	38.2	37.8
F.I.R.E.	97.3	97.5	98.0	-0.2	-0.7						
Finance	46.6	46.4	45.7	0.3	1.8						
Insurance	35.2	35.3	35.5	-0.2	-0.7						
Real Estate	15.5	15.8	16.8	-1.8	-7.4						
Service Industries	388.3	390.6	385.9	-0.6	0.6						
Hotel and Lodging	19.1	19.8	21.0	-3.3	-9.1						
Business Services	58.6	59.2	58.7	-1.1	-0.1						
Health Services	133.5	133.5	131.2	0	1.8						
Private Education	24.7	24.5	23.7	0.7	3.9						
Soc. Serv., Museums etc.	84.5	84.3	83.3	0.2	1.4						
Government	286.3	283.4	300.7	1.0	-4.8						
Federal	30.2	30.3	30.8	-0.3	-2.0						
State	73.8	72.3	75.4	2.1	-2.1						
Local	182.3	180.8	194.6	0.8	-6.3						

1/ Totals may not add because of rounding.
2/ Includes Scientific Instruments and Miscellaneous Industries.

Labor Force Data: State, SMSAs, and Counties

Area or County	November, 1982 Prelim.		
	Labor Force 1/	Unemp.	Un. Rate
State of Minnesota	2153747	184608	8.6
Metropolitan Areas			
Duluth/Superior (Duluth City Only)	36238	4080	11.3
Fargo/Moorhead (Clay County, MN Only)	28266	1823	6.4
Minneapolis/St. Paul SMSA 2/	1170492	86960	7.4
Rochester SMSA (Olmsted Co.)	58718	3713	6.3
St. Cloud SMSA 3/	76392	7130	9.3
Counties			
Aitkin	5210	769	14.8
Anoka	110863	8288	7.5
Becker	12388	1256	10.1
Beltrami	16210	1515	9.3
Benton	11795	1109	9.4
Big Stone	3879	246	6.3
Blue Earth	29389	2047	7.0
Brown	15314	1067	7.0
Carlton	11796	1449	12.3
Carver	20752	1364	6.6
Cass	9601	1166	12.1
Chippewa	7148	602	8.4
Chisago	14604	1145	7.8
Clay	28266	1823	6.4
Clearwater	3864	642	16.6
Cook	2159	311	14.4
Cottonwood	7176	419	5.8
Crow Wing	16902	1936	11.5
Dakota	109622	8034	7.3
Dodge	8147	690	8.5
Douglas	13096	1061	8.1
Faribault	10661	771	7.2
Fillmore	11640	731	6.3
Freeborn	17694	1301	7.4
Goodhue	19579	1581	8.1
Grant	3328	169	5.1
Hennepin	531862	39176	7.4
Houston	9849	542	5.5
Hubbard	5524	659	11.9
Isanti	10271	1105	10.8
Itasca	17753	3597	20.3
Jackson	7693	337	4.4
Kanabec	5558	675	12.1
Kandiyohi	18130	1178	6.5
Kittson	3250	195	6.0
Koochiching	7914	1166	14.7
Lac qui Parle	5698	361	6.3

Area or County	November, 1982 Prelim.		
	Labor Force 1/	Unemp.	Un. Rate
Lake	5017	1906	38.0
Lake of the Woods	1917	166	8.7
Le Sueur	11641	1301	11.2
Lincoln	3556	174	4.9
Lyon	14625	894	6.1
McLeod	15729	1123	7.1
Mahnomen	2615	262	10.0
Marshall	6280	620	9.9
Martin	14345	1069	7.5
Meeker	11115	948	8.5
Mille Lacs	8983	994	11.1
Morrison	13192	1901	14.4
Mower	16903	1241	7.3
Murray	5841	314	5.4
Nicollet	15054	980	6.5
Nobles	11909	599	5.0
Norman	4584	234	5.1
Olmsted	58718	3713	6.3
Otter Tail	23680	1858	7.8
Pennington	6323	549	8.7
Pine	9512	1127	11.8
Pipestone	5430	286	5.3
Polk	15956	1397	8.8
Pope	5406	454	8.4
Ramsey	260559	19932	7.6
Red Lake	2198	319	14.5
Redwood	10600	639	6.0
Renville	11882	961	8.1
Rice	23784	2009	8.4
Rock	5494	259	4.7
Roseau	5314	671	12.6
St. Louis (Inc. Duluth)	98144	21143	21.5
Scott	25030	2116	8.5
Sherburne	14321	1632	11.4
Sibley	8259	642	7.8
Stearns	50276	4389	8.7
Steele	16187	1249	7.7
Stevens	5740	295	5.1
Swift	6215	522	8.4
Todd	11494	997	8.7
Traverse	2682	181	6.7
Wabasha	9665	885	9.2
Wadena	6377	582	9.1
Waseca	8737	632	7.2
Washington	63786	4349	6.8
Watonwan	6443	398	6.2
Wilkin	4228	293	6.9
Winona	22344	1894	8.5
Wright	33414	2556	7.6
Yellow Medicine	7653	470	6.1

Technical Notes:

1/ Labor force data is computed according to BLS methodology. The method includes an adjustment to assure that the sum of the substate areas equals the separately estimated State total. This adjustment is applied to all county and SMSA areas. County and area unemployment was multiplied by an adjustment factor of 1.50; employment was multiplied by 1.02. For a more detailed explanation see the Review of Labor and Economic Conditions, Vol. 4, No. 4, (February 1978 issue), p. 29.

2/ Anoka, Carver, Chisago, Dakota, Hennepin, Ramsey, Scott, Washington, and Wright Counties.

3/ Benton, Sherburne, and Stearns Counties.

Selected Minnesota Program Statistics

Characteristics of the Insured Unemployed

Tables 1 and 2 provide data on persons who filed a claim for unemployment compensation in Minnesota during the month. Only those claiming benefits from the regular State program are represented since data on the characteristics of Federal employees and veterans are not available.

In November, the total number of claimants for unemployment benefits rose at only half of the average October to November percent increase of the past four years. Claimants in October showed only a slight gain from September. The smaller than normal October to November rise in claimants was also very widespread among the various industry sectors. Although still quite high, claimants in Mining rose only nominally in November. Over-the-year, the number of claimants rose by 45 percent, the smallest annual increase since last March. The gains from the year earlier have been getting increasingly smaller in each month since September.

Table 1. Distribution of Insured Unemployed, By Age and Sex, November, 1982

Age Groups	Number	Percent Distributions		
		Men of Totals	Men of Men	Women of Women
TOTALS	62026	70.1	100.0	100.0
Under 45	48224	70.6	78.3	76.4
Under 25	12781	68.8	20.2	21.6
25-34	23234	73.0	39.0	33.8
35-44	12209	68.2	19.1	21.0
45 and Over	13802	68.3	21.7	23.6
45-54	7978	68.0	12.5	13.8
55 and Over	5824	68.6	9.2	9.8

Table 2. Distribution of Insured Unemployed By Industry and Occupation, November, 1982

Industry and Occupational Attachment	Number	Percent of Total	Percent Long-Term 1/ Unemployed	Women as Percent of Total
Total, All Industries	62026	100.0	29.7	29.9
Ag., For., Fish.	855	1.4	11.3	21.8
Mining	6932	11.2	60.5	4.2
Construction	8049	13.0	13.2	4.9
Manufacturing	20917	33.7	26.5	30.7
Pub. Utilities	1943	3.1	25.0	22.4
Wholesale Trade	3925	6.3	30.0	25.7
Retail Trade	6069	9.8	28.1	44.5
Fin., Ins., Real Est.	1338	2.2	31.7	58.8
Services	10075	16.2	34.9	55.7
Public Admin.	1207	1.9	15.2	40.6
Inf. Not Available	716	1.2	4.7	29.1
Total, All Occupations	62026	100.0	29.7	29.9
Prof., Tech., Mgr.	8390	13.5	40.7	42.4
Clerical	6627	10.7	31.5	77.9
Sales	2031	3.3	31.0	34.6
Services	4366	7.0	27.1	57.7
Farm., For., Fish.	839	1.4	9.2	20.1
Processing	1978	3.2	39.1	25.1
Machine Trades	5287	8.5	27.0	15.1
Benchwork	7549	12.2	24.3	47.3
Structural Work	11686	18.8	15.2	3.6
Misc.	13069	21.1	39.6	8.1
Inf. Not Available	204	0.3	30.4	41.2

1/ Long-Term unemployed refers to unemployment insurance claimants whose current spell of unemployment has lasted 15 weeks or longer.

Job Service Applicant Supply and Demand

Table 3 compares Job Service (J.S.) job applicants with the J.S. job openings that existed at the end of the month. These comparisons are expressed as supply/demand ratios. Other things being equal, the greater the ratio of applicants to openings, the greater the competition has been for work within that occupational category. To put these ratios into context, the reader must remember that not only do job seekers and employers in general find jobs or recruit workers through other means, but those interested in certain kinds of jobs are particularly unlikely to use the J.S. For example, workers seeking professional and Managerial jobs are least likely to use the J.S., whereas employers usually recruit construction workers through union halls and hire teachers directly. Thus, the main value of Table 3 is that it reflects, for broad occupational groups, the relative labor market conditions that those using the J.S. encountered when seeking work.

Table 3. Experienced Supply/Job Openings Demand1/

Occupation	Applicants (Supply)	Job Openings (Demand)	Supply/Demand Ratio	
Total				
Prof., Tech., Mgr.				
Clerical				
Sales				
Dom. Services				
Other Services				
Farm., Fish., For.				
Processing				
Machine Trades				
Benchwork				
Structural Work				
Mtr. Frght., Trans.				
Pkg. & Mat. Hndlg.				
Other				

Data for Table 3 is not available at this time due to new fiscal year processing delays. This information will be included in future issues when it becomes available.

1/ Inexperienced and improperly coded job applicants are not included in this table.

S4160-3

CURRENT MINNESOTA LABOR MARKET CONDITIONS

January 1983 Supplement to The Review of Labor and Economic Conditions

Prepared by the Research and Statistical Services Office, MN Dept. of Economic Security, 390 N. Robert St., St. Paul MN 55101, in cooperation with the U.S. Department of Labor, Bureau of Labor Statistics, and Employment and Training Admin.

Nation

Even though there was a noticeable deceleration in the decline of certain key indicators in December, it is not clear that a recovery is underway. However, some economists believe the recession may have ended in December.

The small December rise of a 0.1 percent to 10.8 percent in the Nation's seasonally adjusted unemployment rate may be a sign that unemployment is nearing its peak. Also encouraging was that the December drop in manufacturing employment was much smaller than in the two previous months. On the other hand, seasonally adjusted total nonfarm payroll employment still showed a sizeable decline in December and although claims for unemployment benefits have been dropping in recent weeks, unemployment is expected to remain high throughout 1983.

Other developments in December and the fourth quarter also suggested that the downturn may be nearing an end. Industrial production fell by only 0.1 of a percent in December after declines of 0.7 of a percent in November and 1.1 percent in October. Also, a large part of the fourth quarter decline in real gross national product (preliminary estimate) was due to a record drop in inventories which could set the stage for a recovery. There were, however, decreases in retail sales and housing starts and slow growth in personal income and consumer expenditures in December.

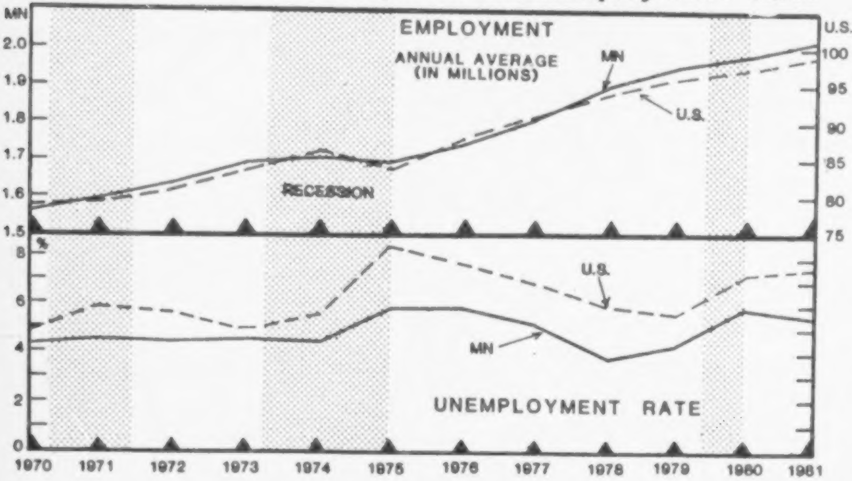
State

The Minnesota economy continued to slide in December as the unemployment rate rose to another new high and total and nonfarm wage and salary employment declined further. Moreover, some economists in the state do not expect much improvement until well after the start of a national recovery.

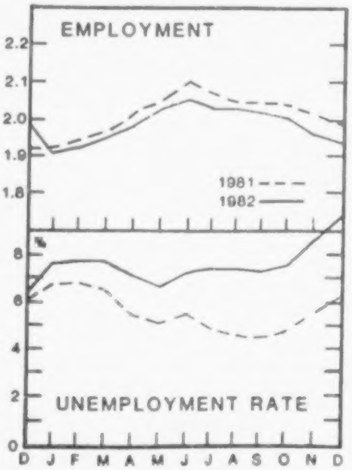
The State's seasonally unadjusted unemployment rate rose 0.7 of a percentage point to 9.3 percent in December. Although the rise was about normal for December, the December rate was a record high for the second month in a row. Even if the rate was overstated by as much as half a point, it would still be well above the highs of the two previous recessions. Total employment (unadjusted) fell slightly faster than it usually does between November and December and showed a sharp over-the-year decline. Also, seasonally adjusted nonfarm wage and salary employment fell for the fifteenth consecutive month, falling by 4,900 in December after a drop of 8,900 in November. Although employment in durable goods manufacturing showed virtually no change in December, we are hesitant to view this as a positive sign because there was also no change in September. Since October 1981 when seasonally adjusted nonfarm wage and salary employment began its long decline, wage and salary employment has fallen by nearly 38,000. The largest reductions in terms of numbers during this period have been in manufacturing, trade and government.

Labor Force Estimates	MINNESOTA (Numbers in '000's)			UNITED STATES (Numbers in '000,000's)		
	December 1982	Change From Last Mo.	Change From Year Ago	December 1982	Change From Last Mo.	Change From Year Ago
Civilian Labor Force	2130.4	-23.2	5.3	110.4	-0.4	1.8
Employed	1932.0	-36.5	-61.1	98.8	-0.6	-0.8
Unemployed	198.4	13.3	66.4	11.6	0.2	2.6
Unemployment Rate						
Actual	9.3	0.7	3.1	10.5	0.1	2.2
Seasonally Adjusted	n.a	n.a	n.a	10.8	0.1	2.2

MN and the U.S., Employment & Unemployment Rate



MN, 1981 and 1982



Minnesota Nonagricultural Wage & Salary Employment, Hours, and Earnings

INDUSTRY	EMPLOYMENT1/ (thousands)			PER CENT CHANGE FROM		PRODUCTION WORKERS' HOURS & EARNINGS					
						Average Weekly Earnings		Average Hourly Earnings		Average Weekly Hours	
	Dec. 1982	Nov. 1982	Dec. 1981	Nov. 1982	Dec. 1981	Dec. 1982	Nov. 1982	Dec. 1982	Nov. 1982	Dec. 1982	Nov. 1982
TOTAL NONAGRICULTURAL	1691.5	1699.2	1763.6	-0.5	-4.1						
MANUFACTURING	331.3	334.8	353.4	-1.1	-6.3	372.39	363.78	9.38	9.28	39.7	39.2
Durable Goods	196.5	198.1	213.4	-0.8	-7.9	380.43	370.80	9.44	9.34	40.3	39.7
Furniture, Lumber and Wood	13.1	13.2	13.5	-1.0	-3.2	381.62	370.92	9.76	9.71	39.1	38.2
Stone, Clay and Glass	7.4	8.1	8.4	-8.1	-11.4	359.19	352.36	9.21	9.20	39.0	38.3
Primary Metals	5.4	5.5	6.4	-0.7	-15.5	336.54	323.69	8.81	8.82	38.2	36.7
Fabricated Metals	32.2	32.2	33.3	-0.1	-3.4	446.46	435.30	10.63	10.54	42.0	41.3
Nonelectrical Machinery	76.8	77.5	85.7	-0.9	-10.4	385.42	379.45	9.54	9.51	40.4	39.9
Electrical Machinery	25.0	25.4	25.7	-1.5	-2.6	329.54	322.62	8.28	8.23	39.8	39.2
Transportation Equipment	5.9	4.8	6.4	24.2	-6.6	390.82	359.33	9.97	9.19	39.2	39.1
Other Durable Goods 2/	30.6	31.5	34.0	-2.6	-9.9	356.13	346.12	8.75	8.61	40.7	40.2
Nondurable Goods	134.8	136.7	140.0	-1.4	-3.8	363.09	354.20	9.31	9.20	39.0	38.5
Food and Kindred	43.9	45.9	45.3	-4.2	-3.1	342.86	337.26	8.68	8.56	39.5	39.4
Textile and Apparel	4.9	5.2	7.0	-5.6	-29.8	222.90	216.75	5.96	5.89	37.4	36.8
Paper and Allied	31.2	31.0	32.0	0.9	-2.6	438.60	429.09	10.32	10.29	42.5	41.7
Printing and Publishing	34.7	34.5	33.7	0.4	2.9	361.43	351.00	10.21	10.00	35.4	35.1
Chemical and Petroleum	8.8	8.8	9.5	-0.9	-7.5	386.31	378.86	9.88	9.97	39.1	38.0
Rubber and Leather	11.3	11.3	12.5	-0.3	-9.6	296.32	291.40	7.86	7.94	37.7	36.7
NONMANUFACTURING	1360.2	1364.4	1410.2	-0.3	-3.5						
Mining and Quarrying	6.2	6.3	14.9	-0.6	-58.0	492.32	479.31	13.27	12.85	37.1	37.3
Metal Mining	4.3	4.4	13.4	9.5	-64.2	530.31	530.31	14.69	14.69	36.1	36.1
Construction	56.3	64.4	64.4	-12.6	-12.5	525.40	470.23	14.20	14.38	37.0	32.7
Building	16.6	18.2	20.0	-8.9	-16.8	464.82	442.43	12.20	12.75	38.1	34.7
Highway and Heavy	6.8	11.5	7.9	-41.5	-14.9	442.43	350.11	11.99	11.99	36.9	29.2
Special Trades	33.0	34.7	36.5	-4.9	-9.6	574.03	522.25	15.77	16.02	36.4	32.6
Transportation	59.9	60.1	63.6	-0.4	-5.9						
Railroads	12.5	12.7	15.0	-1.6	-16.3	477.90	477.90	10.04	10.04	47.6	47.6
Trucking and Warehousing	23.3	23.1	24.3	0.8	-4.2	435.26	438.37	11.86	11.88	36.7	36.9
Public Utilities	33.0	33.1	34.3	-0.4	-3.8	471.62	468.85	11.97	11.93	39.4	39.3
Communications	18.9	19.0	19.7	-0.5	-4.1	434.25	434.64	11.25	11.26	38.6	38.6
Elec., Gas and Sanitary	14.1	14.1	14.6	-0.2	-3.3	515.50	507.67	12.76	12.66	40.4	40.1
Trade	433.2	429.3	447.1	0.9	-3.1	211.20	208.68	7.04	7.05	30.0	29.6
Retail	323.3	319.0	330.4	1.3	-2.2	168.85	165.51	6.14	6.13	27.5	27.0
General Merchandise	49.7	47.2	52.2	5.2	-4.9	168.07	159.29	5.64	5.73	29.8	27.8
Food Stores	45.3	44.8	46.0	1.1	-1.6	208.85	210.05	7.38	7.37	28.3	28.5
Automotive	33.4	33.5	33.9	-0.2	-1.2	253.66	249.22	7.31	7.33	34.7	34.0
Eating and Drinking	104.4	104.9	106.5	-0.4	-2.0	91.35	90.27	4.35	4.34	21.0	20.8
Wholesale	109.9	110.3	116.7	-0.3	-5.8	360.14	357.50	9.33	9.31	38.6	38.4
F.I.R.E.	97.7	97.5	98.0	0.2	-0.4						
Finance	46.8	46.6	45.8	0.3	2.0						
Insurance	35.3	35.2	35.6	0.3	-0.8						
Real Estate	15.6	15.6	16.6	-0.2	-6.2						
Service Industries	389.0	388.1	386.0	0.2	0.8						
Hotel and Lodging	19.4	19.2	21.0	1.0	-7.2						
Business Services	58.3	58.4	58.8	-0.2	-0.9						
Health Services	133.9	133.5	131.4	0.3	1.9						
Private Education	24.9	24.6	24.0	1.3	3.8						
Soc. Serv., Museums etc.	84.7	84.5	83.8	0.2	1.0						
Government	284.9	285.5	301.9	-0.2	-5.6						
Federal	30.0	30.1	30.7	-0.2	-2.2						
State	72.6	73.4	74.5	-1.1	-2.5						
Local	182.2	182.0	196.7	0.1	-7.4						

1/ Totals may not add because of rounding.
2/ Includes Scientific Instruments and Miscellaneous Industries.

Labor Force Data: State, SMSAs, and Counties

Area or County	December, 1982 Prelim.		
	Labor Force[1]	Unemp.	Un. Rate
State of Minnesota	2130334	198351	9.3
Metropolitan Areas			
Duluth/Superior (Duluth City Only)	35635	4108	11.5
Fargo/Moorhead (Clay County, MN Only)	27659	2004	7.2
Minneapolis/St. Paul SMSA[2]	1168148	87473	7.5
Rochester SMSA (Olmsted Co.)	58301	3948	6.8
St. Cloud SMSA[3]	75368	7768	10.3
Counties			
Aitkin	5158	949	18.4
Anoka	110976	8671	7.8
Becker	12455	1942	15.6
Beltrami	16026	1673	10.4
Benton	11808	1179	10.2
Big Stone	3756	325	8.7
Blue Earth	28811	2256	7.8
Brown	14815	1357	9.2
Carlton	11853	1627	13.7
Carver	21124	1787	8.5
Cass	9516	1447	15.2
Chippewa	6916	822	11.9
Chisago	14819	1396	9.4
Clay	27659	2004	7.2
Clearwater	3736	865	23.2
Cook	2212	382	17.3
Cottonwood	6905	484	7.0
Crow Wing	16938	2237	13.2
Dakota	109560	8240	7.5
Dodge	7959	898	11.3
Douglas	12949	1382	10.7
Faribault	10375	943	9.1
Fillmore	11387	1090	9.6
Freeborn	17434	1600	9.2
Goodhue	19122	1608	8.4
Grant	3266	283	8.7
Hennepin	529723	38336	7.2
Houston	9183	601	6.5
Hubbard	5431	828	15.2
Isanti	10229	1268	12.4
Itasca	17576	3730	21.2
Jackson	7314	394	5.4
Kanabec	5384	800	14.9
Kandiyohi	17665	1632	9.5
Kittson	3152	285	9.0
Koochiching	7701	1094	14.2
Lac qui Parle	5368	394	7.3

Area or County	December, 1982 Prelim.		
	Labor Force[1]	Unemp.	Un. Rate
Lake	4589	1516	33.0
Lake of the Woods	1893	179	9.5
Le Sueur	11116	1474	13.3
Lincoln	3230	282	8.7
Lyon	14307	1189	8.3
McLeod	15597	1404	9.0
Mahnomen	2520	320	12.7
Marshall	6214	976	15.7
Martin	13925	1345	9.7
Meeker	10697	1109	10.4
Mille Lacs	8748	1045	11.9
Morrison	12789	2170	17.0
Mower	17381	1476	8.5
Murray	5550	498	9.0
Nicollet	14702	1032	7.0
Nobles	11494	723	6.3
Norman	4352	317	7.3
Olmsted	58301	3948	6.8
Otter Tail	23078	2506	10.9
Pennington	6342	704	11.1
Pine	9258	1370	14.8
Pipestone	5133	332	6.5
Polk	15678	1420	9.1
Pope	5183	586	11.3
Ramsey	259077	19084	7.4
Red Lake	2082	354	17.0
Redwood	10201	781	7.7
Renville	11040	1025	9.3
Rice	23756	2378	10.0
Rock	5169	275	5.3
Roseau	5242	763	14.6
St. Louis (Inc. Duluth)	97048	21560	22.2
Scott	25231	2377	9.4
Sherburne	14106	1722	12.2
Sibley	7946	853	10.7
Stearns	49654	4867	9.8
Steele	15860	1383	8.7
Stevens	5417	397	7.3
Swift	5996	641	10.7
Todd	11069	1203	10.9
Traverse	2582	250	9.7
Wabasha	9442	1159	12.3
Wadena	6072	734	12.1
Waseca	8656	812	9.4
Washington	63797	4517	7.1
Watonwan	6284	532	8.5
Wilkin	4146	413	10.0
Winona	21662	2098	9.7
Wright	33841	3065	9.1
Yellow Medicine	6820	328	4.8

Technical Notes:

1/ Labor force data is computed according to BLS methodology. The method includes an adjustment to assure that the sum of the substate areas equals the separately estimated State total. This adjustment is Applied to all county and SMSA areas. County and area unemployment was multiplied by an adjustment factor of 1.43 ; employment was multiplied by 1.02. For a more detailed explanation see the Review of Labor and Economic Conditions, Vol. 4, No. 4, (February 1978 issue), p. 29.

2/ Anoka, Carver, Chisago, Dakota, Hennepin, Ramsey, Scott, Washington, and Wright Counties.

3/ Benton, Sherburne, and Stearns Counties.

Selected Minnesota Program Statistics

Characteristics of the Insured Unemployed

Tables 1 and 2 provide data on persons who filed a claim for unemployment compensation in Minnesota during the month. Only those claiming benefits from the regular State program are represented since data on the characteristics of Federal employees and veterans are not available.

Between November and December the total number of claimants for unemployment benefits rose by 10,365 or 16.7 percent. The December percentage increase was considerably less than that of the past four years' average November to December rise of nearly 60 percent. Claimants in mining and manufacturing were up only fractionally this December compared to previous years. The largest over-the-month increase was in the construction industry. Over-the-year, the number of claimants rose 21 percent, well under the annual increases of the past four months. Claimants in mining, manufacturing, and wholesale trade accounted for a large part of the growth from December, 1981. The annual average of total claimants in 1982 was 43 percent higher than the average of 1981 and more than double the averages of 1978 and 1979 when the economy was still quite healthy.

Table 1. Distribution of Insured Unemployed, By Age and Sex, December, 1982

Age Groups	**Number**	**Percent Distributions**		
		Men of Totals	**Men of Men**	**Women of Women**
TOTALS	72391	74.4	100.0	100.0
Under 45	55757	75.3	77.9	74.3
Under 25	15666	74.9	21.8	21.3
25-34	26389	77.3	37.8	32.4
35-44	13702	72.2	18.3	20.6
45 and Over	16634	71.5	22.1	25.7
45-54	9388	72.0	12.6	14.2
55 and Over	7246	70.8	9.5	11.5

Table 2. Distribution of Insured Unemployed By Industry and Occupation, December, 1982

Industry and Occupational Attachment	**Number**	**Percent of Total**	**Percent Long-Term Unemployed 1/**	**Women as Percent of Total**
Total, All Industries	72391	100.0	22.5	25.6
Ag., For., Fish.	1777	2.5	4.6	12.8
Mining	6941	9.6	51.3	4.0
Construction	15540	21.4	7.0	3.4
Manufacturing	21790	30.1	23.5	32.6
Pub. Utilities	2472	3.4	15.3	14.3
Wholesale Trade	4705	6.5	23.7	21.3
Retail Trade	6511	9.0	24.3	42.5
Fin., Ins., Real Est.	1287	1.8	27.8	54.2
Services	9247	12.8	30.7	52.5
Public Admin.	1400	1.9	11.7	35.0
Inf. Not Available	721	1.0	3.6	25.4
Total, All Occupations	72391	100.0	22.5	25.6
Prof., Tech., Mgr.	7427	10.3	36.7	39.5
Clerical	5991	8.3	32.6	78.2
Sales	2009	2.7	29.0	33.3
Services	4500	6.2	23.3	58.4
Farm., For., Fish.	1570	2.2	4.3	15.7
Processing	2699	3.7	16.5	37.4
Machine Trades	5291	7.3	25.6	13.6
Benchwork	7861	10.9	22.0	49.1
Structural Work	18498	25.5	9.3	2.5
Misc.	16352	22.6	28.4	7.4
Inf. Not Available	193	0.3	23.8	42.0

1/ Long-Term unemployed refers to unemployment insurance claimants whose current spell of unemployment has lasted 15 weeks or longer.

Job Service Applicant Supply and Demand

Table 3 compares Job Service (J.S.) job applicants with the J.S. job openings that existed at the end of the month. These comparisons are expressed as supply/demand ratios. Other things being equal, the greater the ratio of applicants to openings, the greater the competition has been for work within that occupational category. To put these ratios into context, the reader must remember that not only do job seekers and employers in general find jobs or recruit workers through other means, but those interested in certain kinds of jobs are particularly unlikely to use the J.S. For example, workers seeking professional and Managerial jobs are least likely to use the J.S., whereas employers usually recruit construction workers through union halls and hire teachers directly. Thus, the main value of Table 3 is that it reflects, for broad occupational groups, the relative labor market conditions that those using the J.S. encountered when seeking work.

Table 3. Experienced Supply/Job Openings Demand 1/

Occupation	Applicants (Supply)	Job Openings (Demand)	Supply/Demand Ratio	
Total				
Prof., Tech., Mgr.				
Clerical				
Sales				
Dom. Services				
Other Services				
Farm., Fish., For.				
Processing				
Machine Trades				
Benchwork				
Structural Work				
Mtr. Frght., Trans.				
Pkg. & Mat. Hndlg.				
Other				

Data for Table 3 is not available at this time due to new fiscal year processing delays. This information will be included in future issues when it becomes available.

1/ Inexperienced and improperly coded job applicants are not included in this table.

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REVIEW OF LABOR AND ECONOMIC CONDITIONS

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MINNESOTA DEPARTMENT OF ECONOMIC SECURITY
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Manuscripts of articles are welcomed and should be submitted to the Editor. Articles on labor market conditions and the economic welfare of Minnesota workers are preferred, but subjects which can be shown to be closely related to general economic conditions within the State will also be considered. Articles should be submitted complete with tables and graphs. Length generally should not exceed the equivalent of ten single-spaced typewritten pages, including graphs, references, and notes.

All signed articles appearing in this publication together with the Editorial Comment represent the views of the author or editor and not necessarily those of the Department. Questions or comments to the authors may be directed to the Research and Statistical Services Office of the Minnesota Department of Economic Security, 390 N. Robert Street, St. Paul, Minnesota, 55101 or (612) 297-6545.

Comments and other correspondence concerning the publication should be addressed to the Editor.

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Editorial Comment

THE EIGHTH VERSION OF UNEMPLOYMENT [1]

by R. Pinola

"My word, Mr, Holmes, have you gone bananas? A zero rate of unemployment? Surely you jest!"

"Not at all, Dr. Watson, I've given the matter considerable thought and the logic is impeccable."

"Pray tell, Mr. Holmes, would you care to elucidate?"

"My dear Dr. Watson, it's really quite simple and I wonder that some politician or Harvard MBA hasn't thought of it. You see, unemployment is neither accurately defined or measured. Unfortunately, modern economists and the BLS have done more to confuse than clarify the issue by attempting to distinguish frictional, structual, and demand-deficient unemployment instead of addressing the basic question. As a result, in measuring unemployment they have relied upon some nebulous definitions that are not of much use for policy analysis."

"Well, Mr. Holmes, where do you suppose the moderns have erred, and what is the clue to better policy formulation?"

"To put things into proper perspective, Dr. Watson, we must go back to the basics. You may recall that our good friend, Adam Smith, observed that the system was always tending toward full employment and, that in an exchange economy, markets would clear once given full wage-price flexibility. What it means is that if you are desirous of securing some goods or services you must either produce them yourself or produce something sufficiently attractive so that others are induced to trade. In a way, Jean Baptist Say put it very well when he said supply creates its own demand. Clever chap, that Mr. Say. By stripping the markets of its money illusion he demonstrated that unemployment, if it exists, is all voluntary and requires no special policy or tinkering with the system to resolve it."

"But, Mr. Holmes, what about the poor chap who worked for U.S. Steel at $18 an hour and is now without a job because there is no demand for steel?"

"Elementary, Dr. Watson, he is voluntarily unemployed! In the words of Mr. Say, this poor chap needs to re-examine his options. Suppose I made widgets that no one wanted in trade, or for which my exchange rate was too high; it would surely be to my advantage to engage in some other endeavour or make my exchange rate so attractive that no one could resist my widgets. My failure to do so would, of course, leave me without a market and unemployed, so to speak. But would I be voluntarily or involuntarily unemployed? Naturally, you would agree with me that its all voluntary."

Continued on page 17. See: EDITORIAL COMMENT

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[1] Seven versions were advanced by the late Julius Shisken in 1976 as Commissioner of the Bureau of Labor Statistics. The BLS periodically provides estimates of unemployment based on these seven versions in the Monthly Labor Review.

Research Summaries

EDUCATIONAL SLIPPAGE

By Bruce Steuernagel

This month's Research Summary reviews a monograph[1] developed by two economists at the New York State Department of Labor which addresses the changing supply and demand trend in employment of college graduates over the past 20 years. The authors have applied shift-share analysis to data on employment by level of educational attainment to develop estimates of shifts which have occurred and to develop projections of the educational attainment required for future job openings for individual states. It is the authors' feeling that by assessing more accurately the educational requirements of future job openings, states can better allocate aid to colleges and universities. In addition, if the educational preparation of the labor force matches the educational requirements of the job, there will be less frustration and disillusionment among workers who otherwise may find themselves working at jobs below their level of education.

In the past twenty years, we have witnessed a marked change in the demand for and supply of college graduates in the United States. Between 1962 and 1969, an average of 575,000 college graduates entered the labor force each year. Approximately 73 percent of the graduates went into professional and technical jobs. In the 1970's, the annual average number of college graduates doubled. However, as Table 1 shows, employment growth in industries which in the past employed many college graduates did not continue to grow in the 1970's as they did in the 1960's. This is especially true of the educational services industry which continues to experience a decreasing demand for teachers as the baby boom generation passes through the schools. According to the Bureau of Labor Statistics, 54 percent of college graduates found work in professional and technical jobs in 1981. Higher percentages of college graduates in 1981 than earlier years have found employment in managerial and sales jobs, often as specialists in technical services. However, a small but growing proportion of college graduates have taken jobs in blue-collar and service jobs, jobs which require less education. This results in underutilization of these workers' skills and increases worker frustration.

The composition of college-manpower intensive industries used in Table 1 was developed by Richard B. Freeman in his book, The Overeducated American.

Table 1 Compound Annual Percentage Change in Nonagricultural Wage and Salary Employment in College-Manpower Intensive and Other Industries United States, 1960-1970 and 1970-1980

Industries	1960-70	1970-80	Change in Rate of Growth
Total	2.72	2.48	-0.24
College-manpower-intensive	4.03	2.63	-1.40
Noneducation:	3.43	2.69	-0.74
Professional services	4.95	3.69	-1.26
Federal public administration, except postal service	1.71	1.01	-0.70
Finance, insurance, real estate	3.32	3.55	0.23
College-intensive manufacturing	2.46	1.01	-1.45
Education	5.82	2.46	-3.36
Other (non-college manpower intensive)	2.19	2.42	0.23

Source: Current Employment Statistics Program, Bureau of Labor Statistics, U.S. Department of Labor

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[1] Estimating Educational Attainment of Future Employment Demand for States, Monograph No. 9, U.S. Department of Labor. October 1981. Prepared by Wayne Cotter and Sheldon Dorfman, Associate Economists, New York State Department of Labor.

The New York study utilized the technique of shift-share analysis to examine area employment changes which occur in various educational attainment classifications over a period of time. Employment growth or decline of an educational attainment category can be subdivided into the following components.

1. Overall growth factor - the employment change in an educational attainment classification that would result if each educational attainment group were to change at the same rate as total employment.
2. Occupational change factor - the employment change that results from the change in the distribution of employment among occupational groups from the base period to end period.
3. Educational change factor - the employment change that results from changes in the educational attainment distribution within each occupational group from the base period to the end period.

Table 2 shows the components of change for Minnesota from 1970 to 1978. The 1978 data was calculated using the New York researchers' methodology for states which do not have annual Current Population Survey data on employment by level of education. The methodology utilizes changes in national educational attainment distributions between 1970 and 1978, 1970 Minnesota Census data on educational attainment, and 1978 Minnesota employment by occupation from the Current Population Survey.

Table 2 Components of Change in Educational Attainment of the Employed Labor Force, Age 16 and over, Minnesota, 1970-1978

Years of School Completed	1970 Employment	1978 Estimated Employment	Net Change	Overall Growth	Occupational Change	Educational Change
Total	1,464,300	1,920,000	455,700	455,700	-	-
Elementary, 0-8	234,800	149,300	-85,500	73,100	-13,900	-144,700
High School, 1-3	244,500	235,100	-9,400	76,100	-900	-84,600
High School, 4	571,600	826,500	254,900	177,900	-6,500	83,500
College, 1-3	219,600	363,200	143,600	68,300	8,100	67,200
College, 4+	193,800	345,900	152,100	60,300	13,200	78,600

To give an example of how the components of change technique can be interpreted, we will look at the results for the college, 4+ category. Between 1970 and 1978, employment of persons with four or more years of college education increased by 152,100. If employment in this category would have increased at the same rate as total employment, it would have increased by only 60,300. Over the 1970 to 1978 period there was a shift in the distribution of occupational employment in Minnesota. In 1970, the professional and technical occupational category comprised 15.7 percent of total employment compared to 15.9 percent in 1978, while employment of managers increased its share from 8.6 percent in 1970 to 11.0 in 1978. A rise in employment in these occupational categories signals that employment in the college education attainment categories should also rise. About 13,200 jobs or 8.7 percent of the increase in employment of college grads was due to this factor. For college graduates, the largest component of employment change is the educational change factor. Approximately, 52 percent of the total employment change between 1970 and 1978 resulted

Continued on page 7. See: RESEARCH SUMMARIES

The Job Market

THE BUSINESS SERVICE INDUSTRY

By Bev Jones

Introduction

Employment in the Business Service Industry has shown strong gains over the past 20 years, resulting in a quadrupling of employment since 1960. It has also held up well in the current recession, reporting modest gains in employment in monthly year-ago comparisons throughout 1982. Growth in this industry, contrary to current employment trends, has singled it out for a closer look. This article will look at the Business Service Industry's composition, employment and occupational staffing patterns.

The Industry

The Business Service Industry is comprised of establishments primarily engaged in rendering services to business establishments on a fee or contract basis. Business Services included in this group are advertizing, mailing services, building maintenence services, employment services, management and consulting services, protective services, equipment rental and leasing, commercial research development, and testing, photo finishing, and personnel supply services.

There are 4,200 Business Service establishments employing nearly 58,000 workers. This comprises nearly three and one-half percent of the State's nonagricultural wage and salary employment. Approximately 88 percent of this employment is in the Minneapolis-St. Paul nine-county area. This Industry grew by nearly 64 percent from 1970 to 1978 and is expected to increase another 47 percent by 1985.

Forty percent of the Industry employment is classified as Miscellaneous Business Services, 22 percent Personnel Supply Services, 16 percent Building Services, and ten percent Computer and Data Processing Services.

Occupational Staffing Patterns

Occupational staffing patterns for the Business Service Industry, as shown on Table I, indicate that 68 to 70 percent of the workers fall into three broad occupational categories; namely, Clerical; Professional, Technical, and Kindred; and Service.[1]

Clerical workers comprise the biggest bulk (27 to 30 percent) of this Industry's employment in spite of the relatively low growth rate of 46 percent for the 1970-78 period. However, employment of Clerical workers in this Industry is expected to increase at a faster pace (54 percent) during the 1978-85 period. The four largest occupations are General Secretaries (24.8 percent), Typists (11.1 percent), Office Machine Operators (9.3 percent), and Bookkeepers (7.8 percent).

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[1] All references to 1985 employment or staffing patterns are based on data from Minnesota Employment Outlook to 1985, Minnesota Department of Economic Security Research and Statistical Services Office, January 1981.

There was an increase in the proportion of Professional and Technical workers in this industry from 1970 to 1978 due to their 87 percent rise in number. However, this upward trend is not expected to continue, and the 1985 staffing patterns for Professional and Technical workers is anticipated to remain between 21 and 22 percent with a growth rate of 45 percent between 1978 and 1985. Approximately 60 percent of these workers fall into four occupations: Personnel and Labor Relations workers (25.7 percent); Accountants (20.4 percent); Engineers (10.6 percent); and Engineering and Scientific Technicians (8.1 per-cent).

An upward trend in the proportion of Service employees is noticeable on Table 1. They experienced the second highest growth rate (82 percent) in this Industry from 1970 to 1978, and are expected to increase another 48 percent by 1985. The Service worker's group is dominated by two occupations: Cleaning Service workers (78.9 percent) and Guards (18.5 percent). All other occupations in this group make up less then 3 percent of the total. Both of these occupations are expected to continue growing at faster pace than total Business Service Industry employment.

Even though the number of Craft workers and operatives have increased (43 percent and 37 percent respectively) from 1970 to 1978 in this Industry, their numbers increased at a slower pace than total employment in Business Services. As a result, they represent an increasingly smaller proportion of the total. This trend is expected to continue through 1985. However, one occupation, Data Processing Machine Repairers or Computer Service Technicians, has shown strong growth. Employment of these workers nearly doubled from 1970 to 1978 and it is expected to double again by 1985.

Table I

Occupational Staffing Patterns For the Business Services Industry2/

	Percent of Industry		
Occupational Groups	1970	1978	1985
Professional, Technical, & Kindred	19.1	21.8	21.5
Managers, Officals, & Proprietors	13.0	13.8	13.7
Sales	4.1	3.9	3.9
Clerical	30.4	27.2	28.5
Craft & Kindred	6.2	5.4	4.8
Operatives	8.0	6.7	6.2
Service	18.1	20.2	20.4
Laborers except Farm	1.1	1.0	1.0
Farm Laborers	0.0	0.0	0.0

2/ Source: Minnesota Employment Outlook to 1985, Minnesota Department of Economic Security, Research and Statistical Services Office, January 1981.

SUPPLY/DEMAND FOR SPECIFIC OCCUPATIONS, JANUARY 1983[1]

By Sue Hamper

MINNESOTA

Shortage Occupations: commissioned sales persons#, highly experienced systems analysts and computer programmers#, experienced engineers#, highly experienced and highly skilled clerical workers#

Surplus Occupations: sales clerks#, construction workers#, machine shop workers, truck drivers#, general laborers#

CENTRAL MINNESOTA

Shortage Occupations: commissioned sales persons

Surplus Occupations: office clerks#, construction trades#, welders#, truck drivers, factory assemblers and laborers#

MINNEAPOLIS-ST. PAUL

Shortage Occupations: commissioned sales persons#, highly experienced systems analysts and computer programmers#, highly experienced engineers (especially electrical)#, highly experienced and highly skilled clerical workers#

Surplus Occupations: construction workers#, machine shop workers#, welders, general laborers#

NORTHEASTERN MINNESOTA

Shortage Occupations: none

Surplus Occupations: engineers#, teachers#, social workers#, drafters#, sales clerks#, office clerks#, bookkeepers#, secretaries#, typists#, waiters/waitresses#, cooks, maids, food production workers#, heavy equipment operators#, truck drivers#, auto mechanics#, carpenters#, painters#, bricklayers#, plumbers#, pipefitters#, millwrights#, welders, mining workers, laborers: construction, mining, and general#

NORTHWESTERN MINNESOTA

Shortage Occupations: none

Surplus Occupations: most occupational categories have a surplus of workers

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[1] Shortage occupations are those that are difficult to fill or go unfilled due to the lack of qualified applicants. Surplus occupations are those in which the number of qualified applicants greatly exceeds the number of openings.

# This occupation has been listed as a shortage or surplus occupation in at least two out of the last three quarters of the Review.

SOUTHERN MINNESOTA

Shortage Occupations: commissioned sales representatives#, health care occupations such as registered nurses, nurse aides, and live-in companions to home-bound persons; over-the-road truck drivers

Surplus Occupations: nearly all occupational categories have a surplus of applicants, with varying degrees of education and/or experience

Note: The Experienced Supply/Job Openings Demand table, a regular item in The Job Market Section, has not been included in this issue due to new fiscal year processing delays. The information will be included in future issues.

RESEARCH SUMMARIES (Continued from page 3)

from an increase in the educational attainment of the employed labor force, exclusive of overall growth or occupational shifts. In summary, the educational change factor shows that over 229,000 jobs which in 1970 were held by people with less than a high school education, were in 1978 held by people with a high school degree or some college education. The researchers refer to this figure as "educational spillover".

While there have been technological and other changes in job content between 1970 and 1978 which have necessitated additional educational requirements, it is the contention of the researchers that many of the new educational requirements have been initiated by employers in response to an oversupply of labor. In response to gradually increasing employer requirements and in the face of greater competition for available "good" jobs, individuals find education to be a necessary defensive investment because it raises an individual's income above what it would be if others acquire an education and he or she does not. Although the supply of labor responds to demand in the labor market, as witnessed by the number of teachers being trained now versus a decade ago, the response time is often delayed. More interestingly, it appears that students are much more likely to change their field of study in response to labor market conditions than to change their decisions about whether or not to attend college. The Bureau of Labor Statistics in their report, "The Job Outlook for College Graduates through 1990", predicts that nationally between 1978 and 1990 about 1 graduate in 4 will probably have to enter a nontraditional occupation. The New York researchers have developed a methodology which States can utilize in their labor market information program to project supply/demand situation for their State. This, combined with projections of demand for specific occupations can be a useful planning tool for the educational system as well as students.

Feature Article

1983 ECONOMIC OUTLOOK

By R. Pinola*

I. Introduction

Most forecasts (ours included) of economic activity for 1982 missed the mark by a substantial margin. While we, along with other forecasters, expected a modest turnaround to begin by mid-year, the economy continued to deteriorate into the fourth quarter. About the only good news for 1982 was the reduction in the rate of inflation from an annual average increase of 10.4 per cent in 1981 to 6.1 percent in 1982 for the U. S. Consumer Price Index.1/ Although the prime rate began to tumble after mid-year, the reduction went primarily into refinancing of existing short-term debt. Moderation in home mortgage rates brought some rejuvenation in residential construction in the fourth quarter, but overall construction remained in the doldrums. Meanwhile, manufacturers capacity utilization rates and the Federal Reserve Board's index of industrial production continued to slide downward and both total and nonagricultural wage and salary employment failed to show improvement.

As in previous recessions, consumer spending remained weak and, despite falling interest rates and various forms of rebates on large ticket items, consumers showed little inclination to spend. This, no doubt, was due to a combination of high sticker prices, weak growth in disposable income, and uncertainty over future employment and earnings. In addition, the Nation faced festering structural problems that will require an extended period of adjustment, making any recovery tenuous.

II. Some Unresolved Issues and Problems

As we noted a year ago, one of the problems of a market economy is that in the real world, as distinct from the theoretical competitive model, adjustments to shocks or economic dislocations are not automatic or quickly made. In contrast to the assumptions of perfect knowledge, complete mobility of resources, and flexible wages and prices of the competitive model, the real world is characterized by imperfect knowledge, immobility of resources, inflexible wages and prices, and a host of contrived schemes that impede adjustment.2/ In an attempt to shelter ourselves from the harsh adjustments of the market and provide painless remedies to economic dislocation, we have devised and relied on various elixirs to promote stable employment and restore prosperity. Limited success in the use of these elixirs has often obscured our vision and allowed many structural problems to go untended, causing more pronounced shocks or dislocations at a later date.

1/ For the Minneapolis-St. Paul SMSA, the CPI rose by 10.0 percent in 1982 compared to 12.3 percent in 1981.

2/ For example, tariffs, subsidies, preferential taxation, and a panoply of measures to protect or promote some form of activity.

*This article was prepared in the first week of February, 1983 by R. Pinola, Director Research and Statistical Services Office of the Minnesota Department of Economic Security.

The two primary elixirs that have become part of our bag of macro-economic prescriptions are fiscal and monetary policy. The notion that they can be an effective antidote to whatever ails the patient took the form of accepted folklore in the late 1960s and early 1970s. Even President Nixon's conversion to the new orthodoxy was widely heralded in the press when he ostensibly discovered Keynesian economics. In recent years, however, fiscal and monetary policy has been subjected to revisionist thinking. No longer are Federal deficits and monetary ease considered the sine qua non for economy recovery, nor is neoclassical theory the dirty term only mentioned in Economics 101. Today, deficits are regarded as anathema; the cause of high interest rates, a deterrent to investment, and conducive to inflation and boom-bust cycles in economic activity. Monetary ease is similarly treated. In short, conventional wisdom now has us believing that Federal deficits and monetary ease are misplaced remedies for what ails the patient.

Admittedly, unrestricted deficit spending and monetary ease can and does produce inflationary pressures and obscures our vision of structural problems. We have noted this on many occasions in the past. However, it seems that reality and rationality should dictate our perspective rather than succumb to rhetoric however tantalizing it may be. Given manufacturing capacity utilization rates below 70 percent, an unemployment rate in double-digit figures, two million discouraged workers giving up job search, actual GNP below potential GNP by over 10 percent, and industrial production at its lowest level in the post-war period, it is hard to believe that most of the problem is structural and not demand deficiency. Moreover, it seems questionable to argue that the Federal deficit has: 1) crowded business out of the capital markets, 2) brought about a dearth of investment capital, 3) created undue demand pressures on scarce resources, 4) promoted high interest rates, and 5) slowed economic growth. More realistically, high interest rates in the 1980-82 period were primarily due to the restrictive monetary policy of the Federal Reserve, whereas the dearth of investment capital is hard to justify in the face of over $250 billions that found its way into money market funds to be massaged in every manner except investment in plant and equipment. As for demand pressures on scarce resources, it has been demand deficiency rather than demand pressures that the Nation has experienced for the past three years. Presently, we are faced with a gap between actual and potential GNP in excess of $180 billions in 1972 dollars and roughly $350 billions in current dollars.

For those who may be concerned about the potential bankruptcy of the Nation from Federal deficits, we suggest that it may develop more quickly from money market paper massaging and low output than high aggregate demand and high output spurred by deficits and monetary ease. Historically, low and negative productivity are linked with recessions and low output, whereas high and rapid increases in productivity are linked with recoveries and high output. As we have noted elsewhere, the single largest factor contributing to economic growth in industrial nations has been the ability to capture economies of scale through increases in output which provide cost and price reductions and an expansion in markets.3/

3/ See our editorial comment in the Review of Labor and Economic Conditions, Vol. 8, No. 4, February 1981, Research and Statistical Services Office, Minnesota Department of Economic Security.

If deficit spending and monetary ease stimulate higher levels of output without concomitant increases in inflation, the real gains to the Nation will surely provide a defense against bankruptcy. It may be illuminating to observe that in the years 1942 through 1945 the Federal deficit was consistently in excess of 20 percent of GNP in each year, yet the Nation emerged from the war economically more healthy than before the war and enjoyed a budget surplus in 1946.4/

With substantial structual problems facing the Nation at a time when demand deficiency has been pernicious, the question can be raised as to whether special tax subsidy, tariff, and other preferential programs are to be preferred over faster growth for promoting adjustment to dislocations generated by structural change. Clearly, an economy in which alternative job opportunities are scarce or nonexistent due to demand deficiency will find it more difficult to address structural change. In summary, the new conventional wisdom may prove just as short-sighted as the old, in which case we may have unwittingly thrown out the baby with the bath water.

III. Comparing Post-War Contractions and Expansions

In January 1980 we provided readers with data to show how economic contractions and expansions had affected selected key variables. At that time, we explained that judging the severity of economic recessions depended on which variable one chose and the method of measurement employed. Table 1. provides an updated version of the earlier tabulation to include data through the fourth quarter of 1982. We hasten to add that our measure of change is based on averaging out the particular time series estimates for the noted intervening weeks prior to, coincident with, and succeeding the onset of a contraction, and does not simply represent measuring change from peak to trough and trough to peak for National Bureau of Economic Research-designated business cycles. We feel that averaging out the intervening quarters may be more representative of conditions than a single month or quarter. This is particularly true when dealing with more than one variable whose individual peaks and troughs do not coincide with the NBER-designated peaks and troughs for the business cycle. Actually, there is no fully satisfactory method for measuring the severity of contractions or robustness of expansions and, consequently, individual judgement plays an important role in the choice of variables and methods.5/ Our purpose is to let each reader choose a particular variable or combination of variables and make their own evaluation based on the acknowledged limitations of the measurement technique. As such, the exercise may be both interesting and illuminating.

4/ In 1982 the Federal deficit was approximately 5.0 percent of GNP.

5/ This caveat applies to methods that assign weights based on some presumed ordering of the importance of variables and differing time frames for phases of the cycle.

Table 1. - Percentage Change in Selected Variables in Economic Contractions and Expansions*

Period	Percentage Change in Variables						
	Real GNP (1972 $)	Capacity Utiliz. Rate	Disposable Income (1972 $)	Civilian Employ't	Unempl.	Size of GNP Gap**	Output Per Man-Hour***
1949 Recession							
Contraction	0.6	-10.8	0.2	-1.2	59.6	NA	2.5
Expansion	8.7	12.2	7.7	2.2	-9.5	NA	4.3
1954 Recession							
Contraction	-0.2	-5.4	1.4	-0.8	55.9	2.9	1.0
Expansion	3.2	-1.2	3.8	0.3	18.0	1.0	3.5
1958 Recession							
Contraction	-1.1	-12.3	0.5	-1.4	60.1	7.2	1.7
Expansion	6.1	8.4	4.3	1.7	-12.1	4.7	4.2
1961 Recession							
Contraction	1.0	-6.7	1.6	0.8	22.5	7.5	0.4
Expansion	5.7	5.2	3.9	9.6	-5.9	5.2	4.4
1970 Recession							
Contraction	-0.3	-1.3	4.1	0.9	44.4	2.8	-0.3
Expansion	3.0	6.4	3.5	0.6	22.2	3.8	2.7
1974 Recession							
Contraction	-1.9	-6.5	-0.5	2.0	27.6	5.0	-1.7
Expansion	2.3	-6.1	4.3	0.0	36.7	6.8	2.0
1980 Recession							
Contraction	-0.2	-5.7	-0.1	0.6	18.0	4.2	-1.2
Expansion	1.1	-2.4	1.8	0.6	11.2	5.6	1.3
1982 Recession							
Contraction (July 1981 thru Dec. and 4th Qtr. 1982)	-1.0	-10.2	2.0	-0.4	29.0	10.6	1.1

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* All Percentage changes except those for the 1974 and 1982 recessions are based on use of 4-quarter averages prior to the contraction, coincident with the contraction, and for the succeeding recovery. For the 1974 recession a 5-quarter period was used. For the 1981-2 recession a 6-quarter period was used.

** All figures in this column represent the shortfall in actual compared to potential GNP expressed as a percentage of actual GNP.

*** Output per man-hour is for the nonfarm business sector.

IV. The Forecast for 1983

A. Forecast Methodology

This year we departed slightly from previous years in estimating changes in aggregate demand (GNP). As in other years, we estimated the probable changes in consumption, investment, and government expenditures by taking into account how key policy variables might impact on each component of GNP and what changes could be deduced from historical experience. We then compared the estimates of GNP based on this method with one derived by use of a particular form of a vector autoregression model formulated by Rao Aiyagari for predicting Minnesota wage and salary employment and GNP.6/ Based on this comparison we made some adjustments that seemed warranted by current conditions.

The forecasts of labor force, productivity, and hours worked were developed on the basis of historical data and trends in labor force participation rates for different age-sex cohorts of the population. The U.S. employment estimates were then derived by taking into account the growth in real GNP, productivity per man-hour, and hours worked. Finally, the unemployment estimate was derived by subtracting estimated employment from the forecast labor force.

For Minnesota employment, historical relationships between GNP and Minnesota employment, U.S. and Minnesota nonagricultural wage and salary employment, and U.S. and Minnesota manufacturing employment were used to make a preliminary analysis of expected employment changes. These were then considered in the context of special conditions in the agricultural, mining, and construction sectors, and the probable defense impact on the manufacturing sector. Labor force growth was assumed to track in line with the average for recovery years in the 1970s adjusted for declining birth rates in the 1960s and less than robust employment growth than in 1972-73 and 1976-78.

B. Assumptions

1. Fiscal Policy, Monetary Policy, and Inflation

Federal budget projections made in February 1982 called for a deficit of $91.5 billions in Fiscal Year 1983. By April, the projections were revised to $101.9 billions, and as the calendar year drew to a close it was conceded that the FY 1983 deficit would approach $200 billions on a National Income Accounts basis.

6/ Charles Cline of our research staff has been preparing quarter-ahead forecasts of GNP and Minnesota wage and salary employment using the Aiyagari model. The Aiyagari model generated a 4.5 percent real GNP forecast for 1983. We felt this to be too high since our independently derived forecast was closer to 3.2 percent. We subsequently adjusted our forecast to 3.5 percent assuming interest rate moderation would continue.

Despite the size of deficit we expect interest rates to remain near their current levels for the following reasons: 1) considerable excess capacity in the system precludes undue demand pressures; 2) a strong dollar in foreign exchange markets obviates against the need for artificially high rates to stem the flight of short-term capital; 3) no sudden or mad rush to finance new plant and equipment expenditures; and 4) a more accommodating monetary policy by the Federal Reserve. We also expect inflationary pressures to be contained by productivity increases that generally accompany recovery years, the existence of surpluses in agricultural commodities, petroleum stocks, and many raw materials, and the pressures of competition from foreign finished goods.

2. Disposable Income and Spending

An expansion in defense spending, together with interest-induced improvements in residential housing and durable goods demand, can be expected to trigger increases in payroll employment that will extend into the transportation, real estate, and services sectors. Meanwhile, interest income and transfer payments should continue to track with gains in these components in 1982. Not only is the number of Social Security beneficiaries expanding, but new beneficiaries bring higher earnings records and benefit payments into the system. In addition, the proposed delay in Social Security COLA adjustments seems destined to be postponed to 1984. Disposable personal income will also get a modest shot from the scheduled July 1 cut in Federal withholding taxes. These increases in income will provide the basis for increases in consumer spending unless savings rates rise. Actually, we expect the savings rate to fall as a result of the moderation in interest rates and lower returns on money market investments.

3. Plant, Equipment, and Inventory Investment

In most economic recoveries, the rate of increase in investment expenditures has outpaced the rate at which consumer outlays have grown. In the vernacular of economic theory, this is called the accelerator effect as distinct from the multiplier effect that derives from an increase in income and consumer spending of that income. Given the amount of excess capacity in the economy, we do not anticipate new plant and equipment expenditures to grow at the pace evidenced in previous recovery years.

We have already indicated that residential construction should show sizeable improvement. We also expect some gains in commercial construction and highway maintenance activity, the latter a foregone necessity if the Nation's transportation system is to remain viable. This leaves a large gap to be filled by inventory accumulation if output and income are to grow at a brisk pace. However, we do not expect inventory growth to match that of earlier recovery years for two reasons. First, better control measures have been adopted by industry in the face of high carrying costs and a shortage of working capital, and second, the moderation in inflation provides less inducement to maintain large inventories in anticipation of inflation-generated profits.

4. Government Outlays for Goods and Services

Government spending on goods and services comprises roughly 19 percent of GNP, with Federal outlays accounting for 45 percent of the government ment component. While Federal spending on goods and services is scheduled to rise faster than in 1982, state and local governments are faced with budget problems that limit their spending. Overall, price-adjusted government outlays are likely to grow more slowly than either consumer spending or investment expenditures, but faster than in 1982 because of increased defense outlays.

5. Labor Force, Productivity, and Hours Worked

As economic conditions improve, the labor force usually grows faster in response to expanding job opportunities. This prevents unemployment rates from fully reflecting the gains in employment. For example, in the recovery year of 1972, despite a robust 3.3 percent increase in employment, the unemployment rate fell by only 0.3 percent (from 5.9 percent in 1981 to 5.6 percent in 1972). A somewhat similar condition occurred in the recovery years of 1976 and 1977. Inasmuch as we do not expect the 1983 recovery to match that of 1972, or 1976-7, we feel that the expansion in the labor force will be no more than 2.0 percent.

As we noted earlier, output per man-hour generally rises in recovery years, as do hours worked per week. In 1981, output per man-hour in the private sector rose by 1.8 percent. For the economy as a whole, however, the gain would be smaller because most of the public sector work force is employed in the provision of services where productivity increases are more difficult to achieve than in goods production. For 1983, overall output per man-hour is likely to range between 1.0 and 1.5 percent. Meanwhile, hours worked per week should increase in the goods producing sector as employers employ overtime before hiring new workers as output expands. Since much of the overtime normally occurs in the goods producing sector for production workers, the net effect on total hours worked is considerably smaller.

C. Forecast of U.S. Gross National Product, Employment, and Unemployment

Tables 2 and 3, which appear on pages 16 and 17, provide forecasts of disposable income, aggregate demand (GNP), employment, and unemployment. Understandably the estimates are subject to error as it is impossible to ascertain the precise effect that key policy variables will have on consumer and business behavior, or the speed with which the market adjusts to them. Moreover, policy itself and shocks to the system cannot be nicely predicted. We believe, however, the available data indicates an economic recovery in 1983, albeit not as fast as some would predict, but probably faster than envisaged three months ago.

D. The Minnesota Forecast

Whether measured in terms of nonfarm employment or payrolls, the Minnesota economy exhibited less cyclical sensitivity than the Nation over the first six post-World War II business cycles. However, the 1980-81 cycle reversed the trend. It is too early to determine whether the 1982 downturn and subsequent recovery will continue this reversal, but on the downswing Minnesota nonfarm payrolls and employment will certainly outpace the national average.

Using studies done by Friedenberg and Bretzfelder[7] for three post-war time frames, we can make comparisons of the magnitude of cyclical swings in nonfarm payrolls for the Nation and the 50 states. For the time frames IV Qtr 1948-IV Qtr 1973 and IV Qtr 1973-IV 1979, Minnesota ranked 30th and 28th, respectively, among all the states in the magnitude of cyclical swings in nonfarm payrolls. For the period I Qtr 1980-III Qtr 1981, Minnesota ranked 8th among all states in the magnitude of nonfarm payrolls. Whereas Minnesota's nonfarm payroll swings for the two earlier periods were 6.1 and 2.8 percent compared to the U.S. swings of 7.8 and 4.2 percent, in the more recent period the Minnesota swing was 13.9 percent compared to 8.5 percent for the Nation. The recent reversal between Minnesota and the U.S. in the magnitude of cyclical swings in nonfarm payrolls is primarily due to changes in cyclical swings of the Construction and Manufacturing industries which in the earlier periods were consistently smaller for Minnesota.

Looking at nonfarm employment, the same pattern of swings emerges, except that we were able to examine the swings in more detail. It also permitted us to more adequately "explain" U.S. - Minnesota experience for the time frames used by Friedenberg and Bretzfelder. Excluding the 1982 downturn, and excepting for the 1949 recession and 1976-79 recovery, Minnesota's nonfarm payroll employment declined more slowly during contractions and rose more slowly during expansions; hence having a moderating effect on swings in payroll employment for the State. We already know that payroll employment fell more sharply in Minnesota than the Nation in 1982, but whether it will show a faster or slower rate of increase in the full recovery period cannot be predicted.

One fact that stands out with respect to the current recession is that Construction and Manufacturing payroll employment in Minnesota fell by more in 1982 than in any other recessionary year, excluding 1975 for Manufacturing, since 1948. Further deterioration in the State's economy in 1982 was contributed by the Agriculture and Mining sectors. While some modest improvement is expected in both Mining and Agriculture in 1983, recovery in payroll employment will primarily hinge on the Construction and Manufacturing sectors.[8]

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[7] See "Sensitivity of Regional and State Nonfarm Wages and Salaries to National Business Cycles, 1948-1979", May 1980 Issue of the Survey of Current Business. An update through III Qtr 1981 appeared in a news release by the U.S. Department of Commerce on February 7, 1982.

[8] A strong dollar and various forms of subsidy and tariff protections by our trading partners may continue to inhibit any substantial improvement in agricultural exports. Sales to Third World nations, who are short on foreign exchange and are deeply in debt, rules out any significant gains in this market. Any significant improvement in steel and iron mining activity will largely depend on what happens in the auto industry and whether a steel strike can be averted in 1983. A strike in the steel industry would assuredly lead domestic users to seek long-term commitments from foreign producers.

Despite the relatively low correlations that we have found between changes in GNP and changes in Minnesota payroll employment, our 1983 forecast for Minnesota labor market conditions is largely linked to national economic conditions. As with the Nation, the moderation in interest rates is expected to generate increased residential and commercial construction activity. Also, since our Manufacturing sector is more closely linked to regional and national markets, we feel it will show steady improvement in 1983. In addition, some of our Minnesota manufacturing industries (Ordnance, Nonelectrical Machinery, and Electrical Machinery) have fairly strong linkages with defense expenditures, which should benefit these industries.

Based on the foregoing analysis, Table 4 provides a summary of forecast labor market conditions for Minnesota. As with the Nation, unemployment rates are likely to recede only slowly due to an expansion in the labor force and less than robust employment growth.

Table 2. Forecast Changes in GNP and Components, 1983/1982

Component	Estimated Percent Change
A. Income and Consumption	
1. Disposable Income	9.2
2. Consumption Effect of Change in Savings Rate	0.2
3. Consumption Effect of Installment Credit	0.3
4. Total Change in Personal Consumption	9.7
5. Price-Adjusted Change in Personal Consumption	3.9
6. Net Contribution to Change in GNP	2.5
B. Gross Private Domestic Investment (GPDI)	
1. Nonresidential Fixed Investment	7.5
2. Residential Fixed Investment	17.5
3. Impact of Change in Business Inventories	10.0
4. Change in GPDI	9.0
5. Price-Adjusted Change in GPDI	3.0
6. Net Contribution to Change in GNP	0.5
C. Government Purchases of Goods and Services	
1. Federal	12.0
2. State and Local	6.0
3. Total Government Purchases	8.4
4. Price-Adjusted Government Purchases	2.4
5. Net Contribution to Change in GNP	0.5
D. Net Exports (Rough balance between Exports & Imports)	---
E. 1983/82 Percentage Change in Real GNP	3.5

Table . Changes in U.S. Labor Market Conditions

Item	1982 Average	Estimated Percent Change	Estimated 1983 Average
1. Output Per Man-hour	---	1.2	
2. Hours Worked Per Week	---	0.3	
3. Civilian Labor Force	110.1 mil.	1.7	112.0 mil.
4. Civilian Employment	99.5 mil.	2.0	101.5 mil.
5. Unemployment	10.7 mil.	-1.9	10.5 mil.
6. Unemployment Rate	9.7%	-3.1	9.4%

Table 4. Forecast Labor Market Conditions for Minnesota

Item	1982 Average	Estimated Percent Change	1983 Average
1. Labor Force	2,145	1.5	2,177
2. Employment	1,982	2.1	2,024
3. Unemployment	163	-6.1	153
4. Unemployment Rate	7.6%	-7.9	7.0%

EDITORIAL COMMENT (Continued from page 1)

"Mr. Holmes, I see your point, but tell me, will it not take time for all the adjustments to take place? What happens in the meantime?"

"Obviously, Dr. Watson, the adjustment will be painful and take time, but let us not cloud the issue, the BLS has already done that with their seven versions of unemployment. Moreover, recall that our good friend, Lord Keynes, suggested that in the long run we are all dead and not to worry."

"But, Mr. Holmes, is involuntary unemployment ever possible?"

"Why, of course, Dr. Watson, when you have no job at a zero wage rate, but such a condition is highly unlikely. Now, if you'll excuse me, I have an appointment with the Social Security Administration. Seems they have a cash-flow problem they can't solve."

Brief Analysis Of Economic Conditions

THE NATIONAL AND STATE ECONOMIES AT YEAR'S END

By Ben Boyle

NATION

After continuing to decline through the fourth quarter of 1982, the Nation's economy showed signs of a recovery in January as most indicators of economic activity moved in favorable directions. A number of economists believe the recession ended in December. However, the National Bureau of Economic Research, the official designator of peaks and troughs of recessions, may not announce the date of the trough for several months.

Perhaps the best evidence of an improving economy was a strong January rise(0.9 percent) in industrial production. The production gain in January was the largest since a 1.6 percent increase last February and followed a revised rise of 0.1 percent in December. Also encouraging was a record 35.9 percent jump in housing starts which lifted housing starts to their highest level since September 1979. Economists, however, noted that the large rise was partly due to a combination of unusually mild weather, lower interest rates, and increased home sales. Smaller gains were reported for retail sales and factory utilization. Although there was a significant decline in the unemployment rate and a relatively large gain in nonfarm payroll employment, both of these improvements may have been overstated because of problems in the seasonal adjustment process. Nevertheless, the increases in manufacturing employment and hours worked were genuine positive signs.

Most economists expect a modest recovery in 1983. Forecasts thus far range from the Administration's 3.1 percent real growth to the 3.8 percent real growth forecast by the National Association of Business Economists. The forecast by this office is given in the feature article of this issue.

STATE

After fifteen months of decline, the Minnesota economy appeared to stabilize in January. Although the unemployment rate rose to a very high level in January, total employment did not fall as much as it usually does between December and January. Also, the preliminary estimate of nonagricultural wage and salary employment showed a modest increase from December.

The State's seasonally unadjusted unemployment rate rose to 10.4 percent in January from a downward revised 8.7 percent in December. The January rate compared with a fourth quarter average of 8.0 percent and a 1982 annual average of 7.8 percent. Statistical adjustments that are made at the end of each year may have caused the January rate to have been somewhat overstated. Total employment (also unadjusted) fell 2.7 percent in January which was slightly less than the normal 3.0 percent drop between December and January. Also, after declining for 13 out of the past 15 months, seasonally adjusted nonfarm payroll employment rose 4,300 or 0.3 percent in January. However, these establishment figures are preliminary and may change in February.

Other data for the fourth quarter and January suggested that some segments of the economy may be improving. Building permits for private housing rose 23 percent in the fourth quarter and were 30 percent above the fourth quarter of 1981. Also, retail sales showed more strength in the fourth quarter than earlier in the year. Although average weekly initial claims rose in January, the January figure was somewhat below the average of the fourth quarter and well under the averages of the second and third quarters.

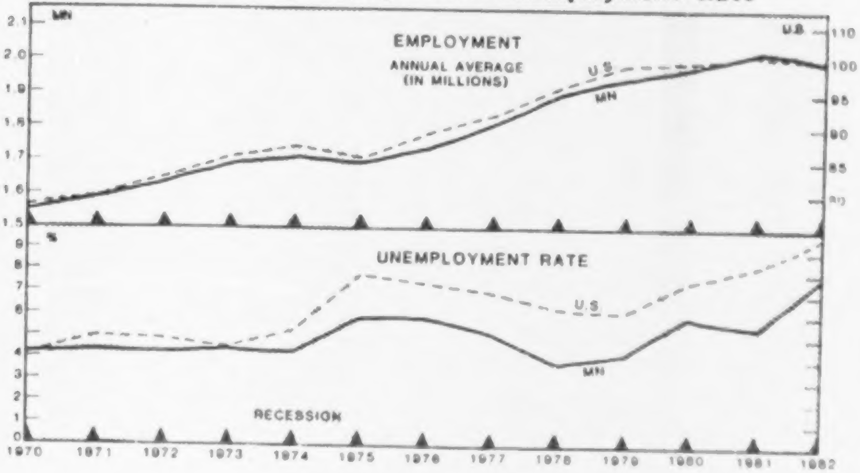
Labor Force Statistics

Labor Force Estimates	MINNESOTA (Numbers in '000's)			UNITED STATES (Numbers in '000,000's)		
	January 1983	Change From		January 1983	Change From	
		Last Mo.	Year Ago		Last Mo.	Year Ago
Civilian Labor Force	2100.7	-28.3	7.2	109.8	-0.6	1.8
Employed	1882.8	-60.5	-54.8	97.3	-1.5	-0.5
Unemployed	217.9	32.2	62.0	12.5	0.9	2.3
Unemployment Rate						
Actual	10.4	1.7	3.0	11.4	0.9	2.0
Seasonally Adjusted	n.a	n.a	n.a	10.4	-0.4	1.8

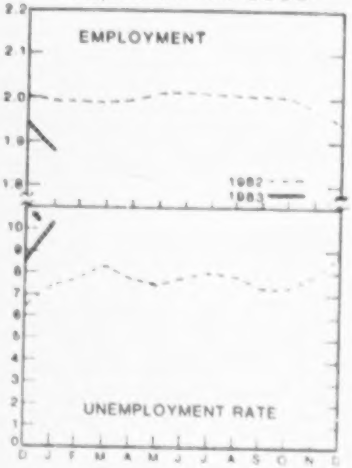
Historical Labor Force Series

Year	Minnesota (Annual Average in '000's)				United States (Annual Average in '000,000's)			
	Labor Force	Employment	Unemployment Number	Rate	Labor Force	Employment	Unemployment Number	Rate
1970	1625.0	1557.0	68.0	4.2	82.8	78.7	4.1	4.9
1971	1665.0	1593.0	73.0	4.4	84.4	79.4	5.0	5.9
1972	1709.0	1635.0	73.0	4.3	87.0	82.2	4.9	5.6
1973	1774.0	1694.0	80.0	4.5	89.4	85.1	4.4	4.9
1974	1779.0	1701.0	77.0	4.3	91.9	86.8	5.2	5.6
1975	1804.0	1697.0	107.0	5.9	93.8	85.8	7.9	8.5
1976	1849.0	1739.0	109.0	5.9	96.2	88.8	7.4	7.7
1977	1907.0	1809.0	97.0	5.1	99.0	92.0	7.0	7.1
1978	1979.0	1903.0	75.0	3.8	102.3	96.0	6.2	6.1
1979	2038.0	1953.0	85.0	4.2	105.0	98.8	6.1	5.8
1980	2108.0	1982.0	125.0	5.9	106.9	99.3	7.6	7.1
1981	2143.0	2024.0	118.0	5.5	108.7	100.4	8.3	7.6

MN and the U.S., Employment & Unemployment Rate



MN, 1982 and 1983



Labor Market Conditions

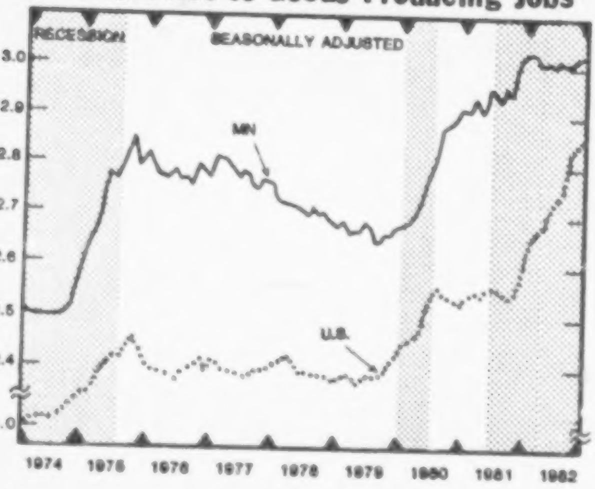
The table and graphs in this section describe the behavior of the market for labor services in terms of its quantity, price, and supply. The quantity of labor services, which is the number of employed persons, is classified by industry. The price of labor services is roughly indicated by the industry wage. Unemployment estimates provide a qualified measure of excess labor supply. The degree to which persons participate in the labor market and the effectiveness of the market in utilizing labor services are indicated by Labor Force Estimates and by Other Rates of Labor Utilization.

Labor Force And Establishment Data	MINNESOTA (Numbers in '000's)			UNITED STATES (Numbers in '000's)		
	IV Qtr. 1982	Percent Change From		IV Qtr. 1982	Percent Change From	
		Last Qtr	Year Ago		Last Qtr	Year Ago
LABOR FORCE ESTIMATES						
Total Labor Force	2149.6	-1.3	0.5	110700	-0.9	1.6
Employment	1966.6	-2.6	-2.8	99351	-1.5	-1.0
Nonagriculatural	n.a	n.a	n.a	96021	-1.0	-1.1
Agriculatural	n.a	n.a	n.a	3330	-13.5	2.6
Unemployment	183.0	15.4	57.2	11349	4.9	31.4
By Reason - New Reentrants-%*	n.a	n.a	n.a	31.7	-5.4	-12.2
By Reason - Quit-%*	n.a	n.a	n.a	6.8	-6.8	-34.0
By Reason - Lost-%*	n.a	n.a	n.a	61.5	3.9	14.7
Unemployment Rates						
Actual	8.5	16.4	57.4	10.3	6.2	30.4
Seasonally Adjusted	n.a	n.a	n.a	10.7	7.0	28.9
OTHER RATES OF LABOR UTILIZATION						
Participation Rt (Labor Force/Population 16+)	n.a	n.a	n.a	64.1	0.0	0.5
Full Employment Deficit - Percent of Workers1/	4.5	3.3[a]	1.4[a]	6.3	5.7[a]	3.9[a]
Manpower Utilization Rate2/	80.4	0.3	-2.3	78.4	-1.6	-4.0
NONAGRICULTURAL WAGE AND SALARIED POSITIONS						
Employment*	1685.6	-0.8	-4.0	88687	-0.8	-2.5
Mining	6.4	4.9	-57.9	1048	-3.6	-12.7
Construction	59.5	-4.3	-11.2	3841	-1.6	-5.5
Manufacturing	334.9	-2.8	-6.4	18214	-2.5	-8.4
Durables	198.2	-3.4	-7.6	10585	-3.9	-11.0
Nondurables	136.7	-1.9	-4.5	7629	-0.6	-4.6
Trans., Comm., & Public Utilities	92.3	-0.4	-5.2	4993	-0.8	-3.0
Trade	424.0	-1.1	-3.2	20376	-0.9	-1.1
Fin., Ins., & Real Estate	97.7	0.2	-0.4	5365	0.1	0.7
Services	389.0	-0.2	0.7	19114	0.3	1.6
Government	281.8	1.7	-5.0	15736	0.3	-1.1
Average Weekly Hours*						
Mining	38.2	0.0	11.7	41.9	-0.9	-6.1
Construction	34.8	-4.4	-3.9	36.6	-2.4	-1.9
Manufacturing	39.1	0.5	-0.5	38.9	-0.3	-1.0
Durables	39.7	0.3	-0.5	39.1	-0.5	-1.5
Nondurables	38.3	0.5	-0.8	38.5	-0.3	-0.5
Trans., Comm., & Public Utilities	38.1	0.5	-2.3	38.8	-0.8	-1.0
Trade	29.7	1.4	-0.3	31.8	-0.6	-0.6
Fin., Ins., & Real Estate	n.a	n.a	n.a	36.1	-0.3	-0.3
Services	n.a	n.a	n.a	32.5	-0.6	-0.3
Average Hourly Wage						
Mining	12.97	3.5	-0.3	11.04	0.7	6.7
Construction	14.25	-0.7	5.6	11.78	1.6	5.2
Manufacturing	9.30	2.0	7.5	8.62	0.8	5.0
Durables	9.37	1.6	8.3	9.18	0.7	4.6
Nondurables	9.21	2.4	6.5	7.88	1.3	6.8
Trans., Comm., & Public Utilities	10.56	1.3	6.7	10.54	1.4	4.8
Trade	7.02	1.2	6.2	6.30	1.1	4.7
Fin., Ins., & Real Estate	n.a	n.a	n.a	7.02	2.5	8.5
Services	n.a	n.a	n.a	7.08	2.3	6.6
Estimates of Labor Turnover (Mfg. Only)	Estimates of Labor Turnover have been discontinued as of January 1, 1982.					

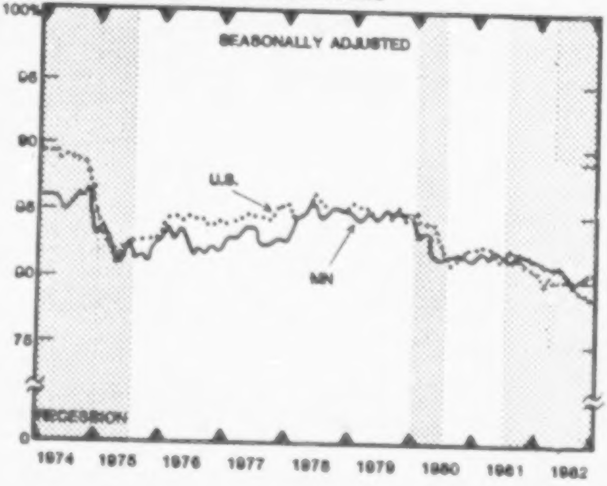
[a] Values are numerical values, not percent changes.

Labor Market Conditions

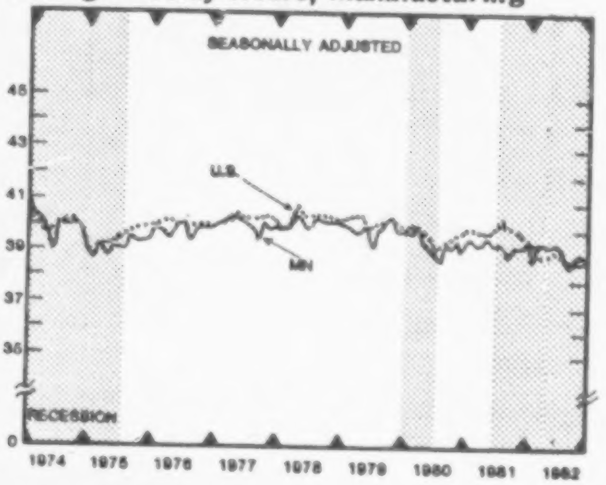
Ratio of Service to Goods Producing Jobs



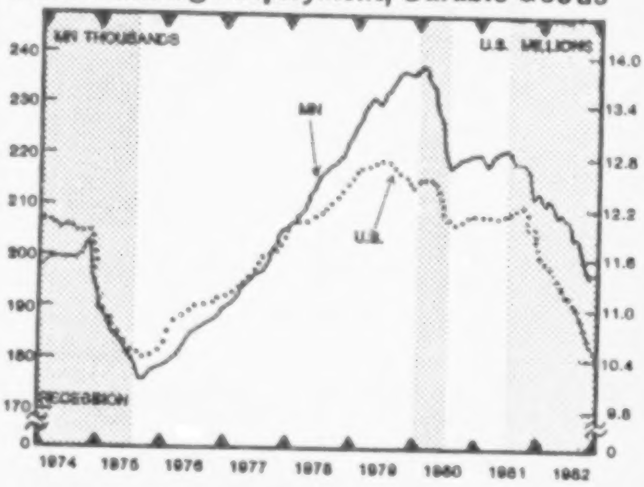
Manpower Utilization Rate



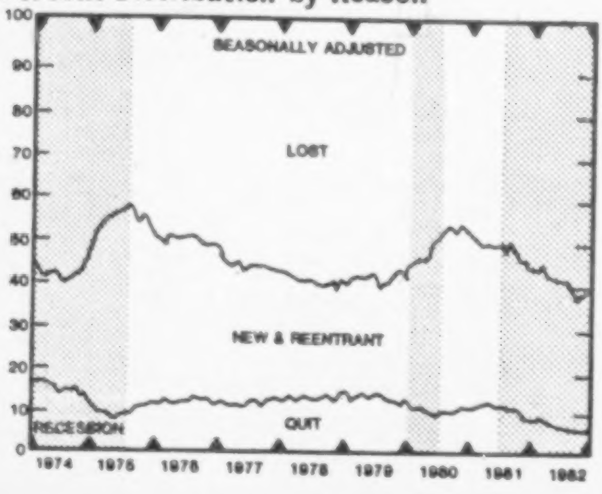
Average Weekly Hours, Manufacturing



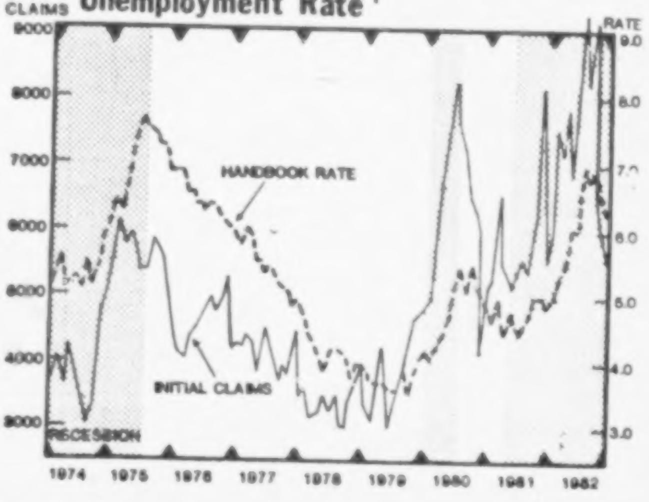
Manufacturing Employment, Durable Goods



U.S. Unemployment:
Percent Distribution by Reason



MN Weekly Initial Claims & Handbook Unemployment Rate[1]



Labor Market Conditions

The Table below provides data on persons who file claims for unemployment compensation in Minnesota. Only those claiming benefits from the regular State program are represented, since data on the characteristics of Federal employees and veterans are not available, and data on those receiving benefits from extended programs is reported only when those programs are in effect. If those receiving extended benefits were included they would distort the numerical comparisons over time, but would not substantially change the percentage distributions other than to increase the proportion of long-term unemployed.

Persons Claiming Benefits	Fourth Quarter 1982			January 1983			Percent Long Term
	Number	Percent Change From		Number	Percent Change From		
		Last Qtr.	Year Ago		Month Ago	Year Ago	
By Age & Sex							
Male	44843	12.1	42.7	63694	18.2	10.3	16.3
Under 45	34960	11.4	36.1	49670	18.2	7.2	15.6
Under 25	9285	15.6	0.9	14126	20.5	-14.5	13.5
25-34	17245	9.2	49.5	23839	16.9	16.1	16.1
35-44	8430	11.5	70.3	11705	18.4	26.1	17.1
45 and Over	9883	14.5	72.7	14024	18.0	23.0	18.6
45-54	5650	16.3	75.1	8023	18.7	21.1	18.1
55 and Over	4233	12.1	69.6	6001	17.0	25.8	19.2
Female	18074	-11.9	34.4	20805	12.5	19.1	24.2
Under 45	13683	-11.9	34.3	15316	11.4	17.4	24.5
Under 25	3834	-5.3	22.7	4596	16.7	7.4	22.1
25-34	6045	-12.7	38.8	6604	10.1	20.5	25.5
35-44	3804	-16.8	40.6	4116	8.0	25.2	25.6
45 and Over	4391	-11.8	34.7	5489	15.7	24.0	23.4
45-54	2512	-13.3	32.1	3006	14.4	20.6	24.1
55 and Over	1879	-9.8	38.3	2483	17.2	28.5	22.6
By Industry	62917	3.9	40.2	84499	16.7	12.4	18.2
Ag., For., Fish.	1062	121.7	22.1	2286	28.6	15.6	5.4
Mining	6882	-13.0	149.4	5045	-27.3	59.5	34.8
Construction	9829	64.2	15.8	21290	37.0	-5.7	6.2
Manufacturing	20200	2.9	49.3	25075	15.1	15.2	21.5
Pub. Utilities	2109	-11.9	20.9	3366	36.2	5.6	13.5
Wholesale Trade	4089	8.1	56.5	5429	15.4	33.3	22.2
Retail Trade	6067	1.4	28.5	8215	26.2	20.6	22.1
Fin., Ins., Real Est.	1287	-3.2	28.3	1500	16.6	28.9	29.0
Services	9560	-18.6	29.9	9860	6.6	20.7	26.6
Public Admin.	1180	49.7	-17.2	1573	12.4	-11.7	15.1
Inf. Not Available	652	30.4	84.7	860	19.3	62.9	4.4
By Occupation	62917	3.9	40.2	84499	16.7	12.4	18.2
Prof., Tech., Mgr.	7997	-19.0	60.0	7791	4.9	44.0	32.7
Clerical	6320	-7.2	34.0	6702	11.9	24.6	31.6
Sales	1988	-5.2	34.1	2456	22.2	24.1	26.8
Services	4211	1.7	25.8	5156	14.6	28.5	22.7
Farm., For., Fish.	946	193.8	11.2	1897	20.8	9.5	4.3
Processing	2289	-17.1	68.8	3604	33.5	1.9	9.9
Machine Trade	5127	2.3	61.3	5751	8.7	26.8	25.7
Benchwork	7257	4.4	42.9	8149	3.7	12.4	22.3
Structural Work	12905	47.7	17.0	25613	38.5	-4.2	7.6
Misc.	13684	0.2	58.1	17133	4.3	18.7	18.4
Inf. Not Available	193	4.9	16.3	247	28.0	26.7	23.1
By Duration	62917	3.9	40.2	84499	16.7	12.4	
0-14 Weeks	45167	-1.3	17.5	69101	23.2	3.5	
15+ Weeks (Long-Term)	17750	20.2	176.3	15398	-5.6	82.5	

Labor Market Conditions

Minnesota Nonagricultural Wage & Salary Employment, Hours, and Earnings

INDUSTRY	EMPLOYMENT 1/ (thousands)			PER CENT CHANGE FROM		PRODUCTION WORKERS' HOURS & EARNINGS					
						Average Weekly Earnings		Average Hourly Earnings		Average Weekly Hours	
	Jan. 1983	Dec. 1982	Jan. 1982	Dec. 1982	Jan. 1982	Jan. 1983	Dec. 1982	Jan. 1983	Dec. 1982	Jan. 1983	Dec. 1982
TOTAL NONAGRICULTURAL	1648.6	1693.9	1698.7	-2.7	-2.9						
MANUFACTURING	329.9	333.2	350.6	-1.0	-5.9	372.88	375.46	9.44	9.41	39.5	39.9
Durable Goods	195.3	196.9	211.5	-0.8	-7.7	378.54	384.74	9.44	9.43	40.1	40.8
Furniture, Lumber and Wood	12.9	12.4	12.5	3.7	2.9	387.83	331.23	9.97	9.75	38.9	39.1
Stone, Clay and Glass	7.0	7.9	7.0	-11.4	0	365.72	360.23	9.45	9.43	38.7	38.2
Primary Metals	5.0	5.0	6.2	-0.2	-19.8	331.74	340.10	8.87	8.88	37.4	38.3
Fabricated Metals	32.5	32.4	34.5	0.3	-5.7	425.14	443.72	10.42	10.59	40.8	41.9
Nonelectrical Machinery	76.6	76.9	87.1	-0.3	-12.0	387.93	392.09	9.65	9.61	40.2	40.8
Electrical Machinery	25.7	25.4	26.2	1.2	-1.8	329.43	337.81	8.34	8.30	39.5	40.7
Transportation Equipment	4.9	6.0	4.5	-18.1	8.8	383.30	390.82	9.93	9.97	38.6	39.2
Other Durable Goods 2/	30.7	30.9	33.5	-0.7	-8.4	362.79	366.74	8.70	8.57	41.7	42.3
Nondurable Goods	134.6	136.3	139.1	-1.3	-3.3	365.72	365.27	9.45	9.39	38.7	38.9
Food and Kindred	43.4	45.1	44.4	-3.7	-2.2	348.69	340.69	8.85	8.56	39.4	39.8
Textile and Apparel	4.8	4.4	5.5	8.6	-13.4	214.37	219.81	6.16	6.14	34.8	35.8
Paper and Allied	31.6	31.9	32.9	-1.0	-4.0	439.69	442.80	10.37	10.37	42.4	42.7
Printing and Publishing	35.3	35.3	35.0	-0.1	0.8	364.34	367.15	10.38	10.52	35.1	34.9
Chemical and Petroleum	8.7	8.8	9.3	-1.5	-6.7	380.93	392.63	9.92	9.89	38.4	39.7
Rubber and Leather	10.9	10.8	12.0	0.5	-9.6	298.34	300.09	7.81	7.96	38.2	37.7
NONMANUFACTURING	1319.4	1359.9	1348.1	-3.0	-2.1						
Mining and Quarrying	7.9	6.5	13.4	20.3	-41.3	477.81	528.63	13.53	13.52	35.3	39.1
Metal Mining	6.6	5.0	12.2	33.2	-45.5	497.72	574.55	14.18	14.77	35.1	38.9
Construction	45.7	54.9	50.6	-16.8	-9.8	530.60	540.48	14.78	14.49	35.9	37.3
Building	13.3	15.7	15.8	-15.5	-16.1	484.50	481.43	13.13	12.77	36.9	37.7
Highway and Heavy	4.0	6.4	4.8	-37.9	-16.8	439.68	450.55	11.45	12.21	38.4	36.9
Special Trades	28.4	32.8	30.1	-13.2	-5.4	566.65	588.04	16.19	15.85	35.0	37.1
Transportation	58.9	61.7	61.9	-4.5	-4.8	357.93	362.23	9.70	9.79	36.9	37.0
Railroads	13.3	13.4	14.5	-1.0	-8.2	462.84	462.84	10.04	10.04	46.1	46.1
Trucking and Warehousing	21.6	23.5	23.0	8.0	-6.0	422.22	434.08	11.86	11.86	35.6	36.6
Public Utilities	32.8	33.5	34.0	-2.1	-3.4	470.42	468.06	11.97	11.91	39.3	39.3
Communications	18.9	19.4	19.8	-2.9	-4.8	428.58	429.28	11.19	11.15	38.3	38.5
Elec., Gas and Sanitary	13.9	14.1	14.2	-0.9	-1.5	518.81	512.95	12.81	12.76	40.5	40.2
Trade	415.9	434.0	423.3	-4.2	-1.8	215.02	210.50	7.12	7.04	30.2	29.9
Retail	307.3	323.3	311.1	-5.0	-1.2	170.84	167.96	6.19	6.13	27.6	27.4
General Merchandise	45.7	49.1	47.1	-6.9	-2.9	170.54	176.40	5.61	5.60	30.4	31.5
Food Stores	43.9	45.3	43.9	-3.1	-0.1	206.92	209.19	7.39	7.34	28.0	28.5
Automotive	132.6	33.4	32.9	-2.4	-1.0	242.59	249.88	7.22	7.16	33.6	34.9
Eating and Drinking	98.9	104.1	99.7	-5.0	-0.8	93.47	82.56	4.58	4.30	21.5	19.2
Wholesale	108.6	110.7	112.3	-1.9	-3.3	364.33	360.84	9.39	9.30	38.8	38.8
F.I.R.E.	97.2	97.7	97.5	-0.5	-0.3						
Finance	46.0	46.0	46.0	0.1	-0.1						
Insurance	35.5	35.4	35.3	0.3	0.5						
Real Estate	15.7	16.4	16.1	-3.9	-2.6						
Service Industries	374.8	381.7	372.2	-1.8	0.7						
Hotel and Lodging	18.5	19.3	18.5	-4.1	-0.1						
Business Services	54.7	57.6	53.7	-5.0	1.9						
Health Services	133.4	133.4	130.4	0	2.3						
Private Education	24.0	24.4	23.3	-1.8	2.9						
Soc. Serv., Museums etc.	80.2	81.1	81.1	-1.1	-1.1						
Government	285.6	290.6	295.2	-1.7	-3.2						
Federal	29.9	30.1	30.6	-0.7	-2.3						
State	73.0	73.7	72.5	-0.9	0.6						
Local	182.8	186.9	192.1	-2.2	-4.8						

1/ Totals may not add because of rounding.
2/ Includes Scientific Instruments and Miscellaneous Industries.

Labor Market Conditions

Labor Force Data: State, SMSAs, and Counties

Area or County	January, 1983 Prelim.		
	Labor Force[1]	Unemp.	Un. Rate
State of Minnescta	2100694	217927	10.4
Metropolitan Areas			
Duluth/Superior (Duluth City Only)	36517	5610	15.4
Fargo/Moorhead (Clay County, MN Only)	27053	2168	8.0
Minneapolis/St. Paul SMSA[2]	1146460	92944	8.1
Rochester SMSA (Olmsted Co.)	57108	3858	6.8
St. Cloud SMSA[3]	74421	8722	11.7
Counties			
Aitkin	5322	1368	25.7
Anoka	109639	9905	9.0
Becker	11862	2506	21.1
Beltrami	15833	1921	12.1
Benton	11148	1312	11.5
Big Stone	3713	401	10.8
Blue Earth	28332	2257	8.0
Brown	14920	1605	10.8
Carlton	11896	1877	15.8
Carver	20868	2017	9.7
Cass	9664	1765	18.3
Chippewa	6935	942	13.6
Chisago	14636	1550	10.6
Clay	27053	2168	8.0
Clearwater	3985	1066	26.8
Cook	2176	411	18.9
Cottonwood	6997	570	8.1
Crow Wing	16617	2756	16.6
Dakota	108072	9299	8.6
Dodge	7667	997	13.0
Douglas	12795	1548	12.1
Faribault	10732	1301	12.1
Fillmore	11515	1291	11.2
Freeborn	17380	1753	10.1
Goodhue	19232	1865	9.7
Grant	3267	352	10.8
Hennepin	517919	38282	7.5
Houston	8960	804	9.0
Hubbard	5399	1015	18.8
Isanti	10115	1452	14.4
Itasca	17739	3942	22.2
Jackson	7389	469	6.3
Kanabec	5471	975	17.8
Kandiyohi	17240	1993	11.6
Kittson	3120	354	11.3
Koochiching	7692	1266	16.5
Lac qui Parle	5389	465	8.6
Lake	4861	1342	27.6
Lake of the Woods	1764	203	11.5
Le Sueur	11194	1595	14.2
Lincoln	3395	380	11.2
Lyon	14137	1573	11.1
McLeod	15953	1775	11.1
Mahnomen	2568	385	15.0
Marshall	6009	1165	19.4
Martin	13419	1449	10.8
Meeker	10457	1596	15.3
Mille Lacs	8614	1192	13.8
Morrison	12575	2098	16.7
Mower	17250	1779	10.3
Murray	5606	700	12.5
Nicollet	14512	1089	7.5
Nobles	11388	912	8.0
Norman	4230	414	9.3
Olmsted	57108	3858	6.8
Otter Tail	23151	3119	13.5
Pennington	6327	811	12.8
Pine	9459	1678	17.7
Pipestone	5250	412	7.8
Polk	15161	1617	10.7
Pope	5198	694	13.4
Ramsey	253800	19839	7.8
Red Lake	2039	469	22.5
Redwood	10183	885	8.7
Renville	10715	1187	11.1
Rice	23170	2504	10.8
Rock	5141	313	6.1
Roseau	5314	994	18.7
St. Louis (Inc. Duluth)	95980	21976	22.9
Scott	24895	2615	10.5
Sherburne	14071	2035	14.5
Sibley	7952	985	12.4
Stearns	48902	5375	11.0
Steele	15925	1535	9.6
Stevens	5558	497	8.9
Swift	5962	708	11.9
Todd	11000	1344	12.2
Traverse	2531	294	11.6
Wabasha	9127	1225	13.4
Wadena	5280	852	16.1
Waseca	8615	887	10.3
Washington	62596	4805	7.7
Watonwan	6330	623	9.8
Wilkin	4113	439	10.7
Winona	21662	2471	11.4
Wright	34035	4032	11.8
Yellow Medicine	7173	782	10.9

Technical Notes:

1/ Labor force data is computed according to BLS methodology. The method includes an adjustment to assure that the sum of the substate areas equals the separately estimated State total. This adjustment is Applied to all county and SMSA areas. County and area unemployment was multiplied by an adjustment factor of 1.46; employment was multiplied by 1.02. For a more detailed explanation see the Review of Labor and Economic Conditions, Vol. 4, No. 4, (February 1978 issue), p. 29.

2/ Anoka, Carver, Chisago, Dakota, Hennepin, Ramsey, Scott, Washington, and Wright Counties.

3/ Benton, Sherburne, and Stearns Counties.

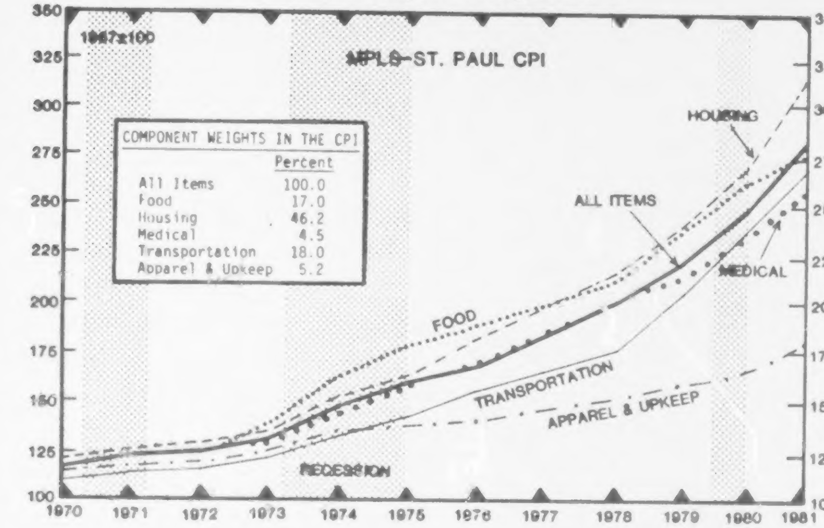
Income & Purchasing Power

This section describes how Minnesotans fare with respect to their ability to acquire goods and services needed to meet their needs and wants and how they compare with others in the United States in this respect. Real Per Capita Personal Income measures money income received by all individuals from wages and salaries, dividends, rent, professional and farm income, personal interest payments, and transfer payments, less personal contributions for social security, all adjusted for the price level as indicated by the CPI and for population. The Consumer Price Index (CPI) measures changes in the price of a representative combination of goods and services consumed by urban wage and salary workers relative to 1967. The inverse of the CPI (1/CPI) indicates the value of the dollar; when the CPI increases the value of the dollar falls. The change in the CPI over any period of time divided by the value at the beginning of the period gives the percentage change, or the rate of inflation.

Income And Purchasing Power	MINNESOTA			UNITED STATES		
	IV Qtr. 1982	Percent Change from		IV Qtr. 1982	Percent Change from	
		Last Qtr.	Year Ago		Last Qtr.	Year Ago
INCOME STATISTICS						
Personal Income 1/*						
Total Personal Income (in Billions)	47.4	-1.3	3.0	2623.2	1.2	5.2
Due to Labor 2/	n.a	n.a	n.a	1730.2	15.3	41.4
Due to Property 3/	n.a	n.a	n.a	608.1	31.9	26.6
Due to Transfer Payments 4/	n.a	n.a	n.a	397.2	52.4	36.2
Total Disposable Personal Income	n.a	n.a	n.a	2223.5	1.2	5.8
As Percent of Total Pers. Inc.	n.a	n.a	n.a	84.8	0.0	0.7
Per Capita Personal Income 5/						
Current dollar Value	11431	-1.3	2.5	11266	0.9	4.2
Real (1967) Dollar Value	3726	0.0	-1.5	3846	0.7	-0.2
Real Median Family Money Income 5/*						
All Families	8652	0.3	-1.5	8597	0.7	-0.4
Four Person Families	9002	0.5	-1.4	10016	0.7	-0.4
Earnings of Production Workers in Mfg. 6/						
Average Weekly Earnings	365.69	3.3	6.7	339.07	1.9	3.9
Real Average Weekly Earnings 7/	119.19	4.7	2.6	115.76	1.7	-0.6
Income Related Criteria 8/						
Standard Budgets						
Low	15118	---	7.8	15323	---	9.1
Moderate	25799	---	9.2	25407	---	9.8
High	38698	---	9.7	38060	---	10.6
Poverty Level Income						
Urban Family of Four	9300	---	10.1	9300	---	10.1
Nonurban Family of Four	7910	---	10.0	7910	---	10.0
MEASURES OF PRICE CHANGE AND INFLATION						
Consumer Price Level (CPI) 9/	306.8	-1.3	4.0	292.9	0.2	4.5
Food	291.5	0.7	4.5	286.8	-0.4	3.3
Housing	361.0	-3.3	3.8	319.2	-0.2	5.0
Transportation	282.0	-0.5	1.7	296.9	-0.2	2.2
Medical	201.3	2.1	11.7	339.4	2.5	10.7
Purchasing Power of the Dollar (1/CPI)	.33	1.2	-3.8	.34	-0.3	-4.5
Wholesale Price Index	n.a	n.a	n.a	300.3	0.1	1.5
Industrial Commodities	n.a	n.a	n.a	314.8	0.6	1.7

Income & Purchasing Power

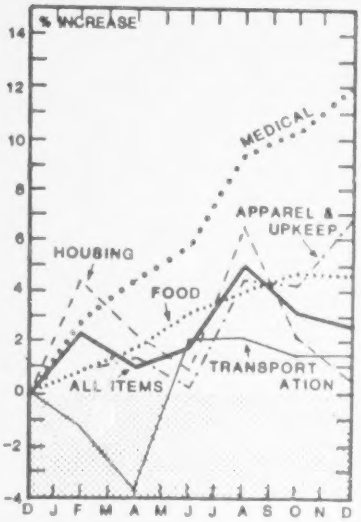
Consumer Price Index- Major Components



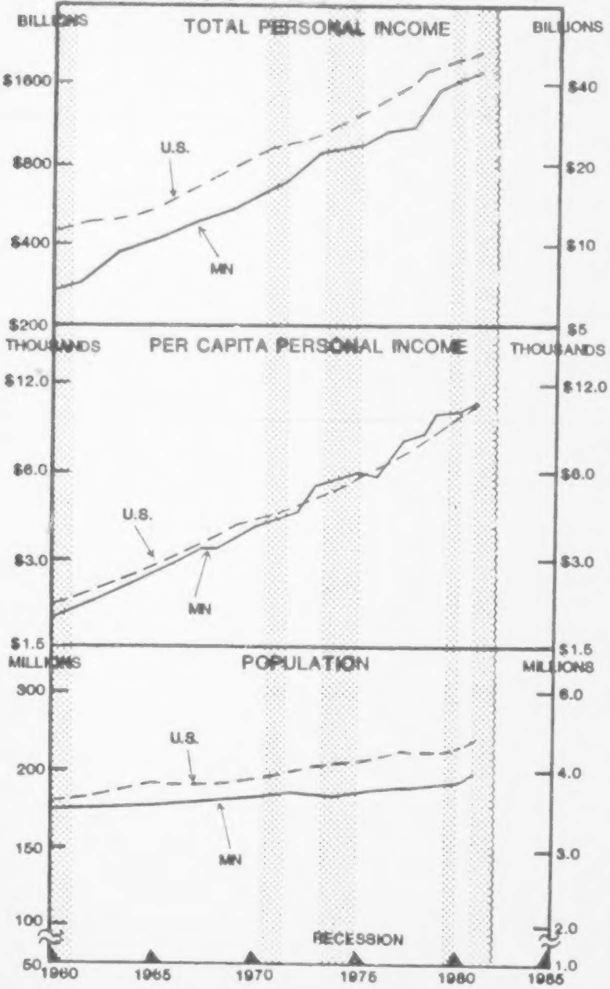
COMPONENT WEIGHTS IN THE CPI

	Percent
All Items	100.0
Food	17.0
Housing	46.2
Medical	4.5
Transportation	18.0
Apparel & Upkeep	5.2

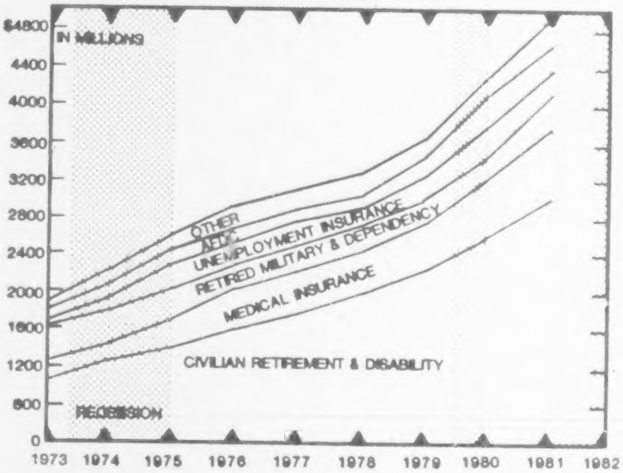
% △ From Dec. 1981



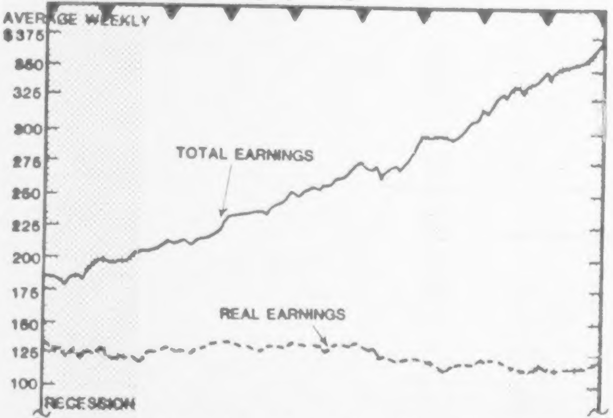
U.S. & MN Personal Income And Population



Government Transfer Payments To Individuals In Minnesota



Minnesota Earnings, Mfg.



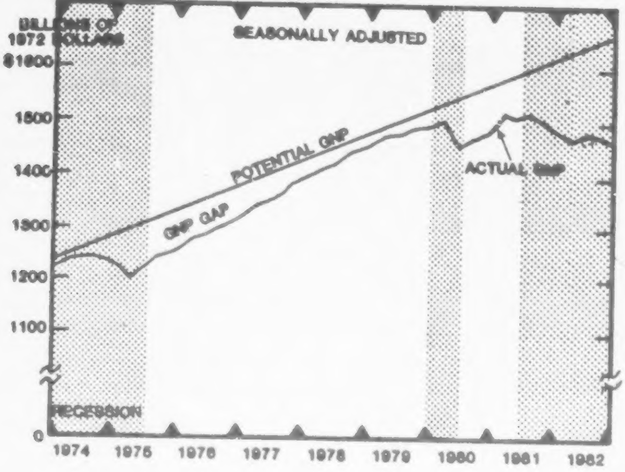
Output, Expenditures, Money, & Credit Conditions

The overall level and composition of National Output shape labor market conditions, and nominal and real earnings. (Nominal values are not adjusted for inflation; real values are adjusted for inflation.) Personal Consumption Expenditures, especially on Durable Goods, together with data on Retail Sales, are frequently used as indicators of future levels of employment. The number of Building Permits influences the level of employment in construction and related industries. The Federal Budget Deficit is a key indicator of the stimulatory effect of government policy. Whether this effect results in inflation, improved employment conditions, or some combination of the two, depends in part, upon the degree to which present productive capacity is utilized. Present and anticipated Money and Credit Conditions determine the ability of consumers, business, and State and Local governments to borrow in order to finance purchases, which, in turn, generate income and employment. Unfortunately, most data of this kind is available only for the Nation. However, in an economy as interdependent as ours, analysis of the directions of change of key national indicators is a useful tool for understanding the course of the State economy.

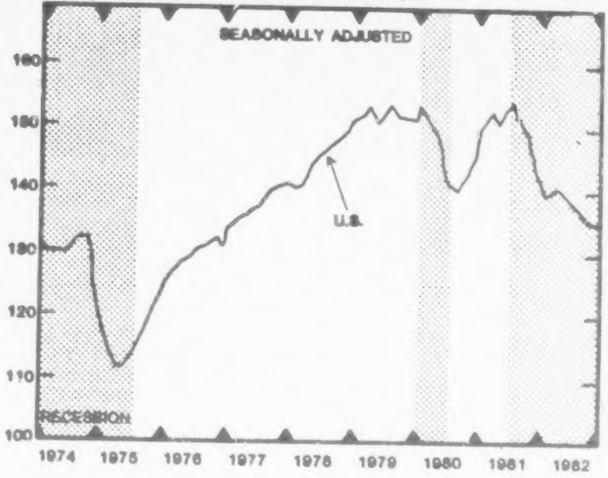
Output, Expenditure, Money, And Credit Conditions	MINNESOTA			UNITED STATES		
	IV Qtr. 1982	Percent Change from		IV QTR. 1982	Percent Change from	
		Last Qtr.	Year Ago		Last Qtr.	Year Ago
OUTPUT AND EXPENDITURE						
Retail Sales (in millions of dollars)	1765	7.4	10.1	91722	3.0	5.9
Private Housing Units Authorized by Building Permits 1/	20340	23.1	30.1	1218	23.7	60.5
Index of Industrial Production 2/	n.a	n.a	n.a	135.1	-2.2	-7.7
Gross National Product (in billions of 1972 dollars)* 3/	n.a	n.a	n.a	1471.7	-0.6	-1.2
Personal Consumption Expenditures	n.a	n.a	n.a	968.0	1.2	2.6
Durable Goods	n.a	n.a	n.a	142.8	4.7	6.5
As Percent of Pers. Cons.	n.a	n.a	n.a	14.8	3.5	4.2
Nondurable Goods	n.a	n.a	n.a	368.2	0.6	1.4
Services	n.a	n.a	n.a	457.0	0.7	2.4
Gross Private Domestic Investment	n.a	n.a	n.a	183.6	-11.0	-16.1
As Percent of GNP	n.a	n.a	n.a	12.5	-10.1	-15.0
Nonresidential, Fixed	n.a	n.a	n.a	159.6	-2.3	-8.4
Residential	n.a	n.a	n.a	41.7	5.6	4.5
Net Exports	n.a	n.a	n.a	21.1	-23.3	-42.2
Government Purchases	n.a	n.a	n.a	299.0	2.7	2.6
Federal	n.a	n.a	n.a	123.7	6.5	6.6
State and Local	n.a	n.a	n.a	175.4	0.3	0.1
GNP Gap (Full Empl. Minus Present GNP)						
1972 Dollars (in billions)	n.a	n.a	n.a	187.1	13.1	55.4
Current Dollars (in billions)	n.a	n.a	n.a	393.8	14.1	61.7
Current Federal Budget Deficit 4/ As Percent of GNP	n.a	n.a	n.a	-6.4	-5.1	-3.4
Inventory to Sales: Durable Goods in Mfg.	n.a	n.a	n.a	2.48	4.6	5.1
New Orders to Shipments: Durable Goods	n.a	n.a	n.a	1.00	5.0	4.0
Plant Capacity Utilization Rate in Mfg. 5/	n.a	n.a	n.a	67.6	-3.0	-9.6
MONEY AND CREDIT CONDITIONS						
Interest Rates						
Discount Rate	9.25	-14.6	-29.1	9.25	-14.6	-29.1
Prime Rate	n.a	n.a	n.a	11.96	-18.8	-29.7
Rate on Conventional Mortgages	13.37	-10.0	-13.2	14.32	-7.6	-10.9
Federal Funds Rate	n.a	n.a	n.a	9.28	-15.7	-31.7
Consumer Installment Credit Outstanding	n.a	n.a	n.a	338411	1.3	2.4
As Percent of Disposable Personal Income	n.a	n.a	n.a	15.2	0.1	-3.2

Output, Expenditures, Money, & Credit Conditions

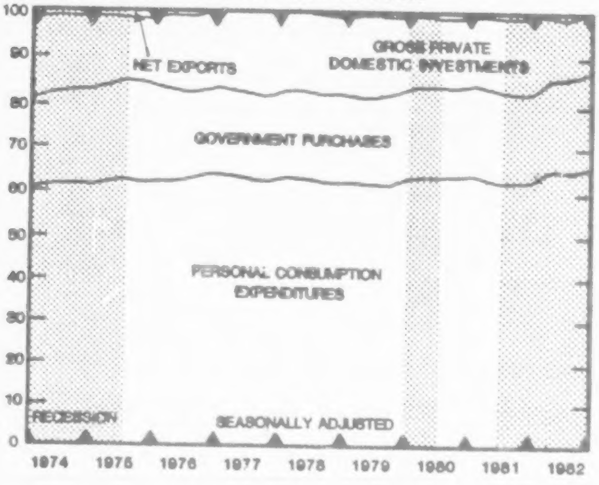
Potential & Actual GNP



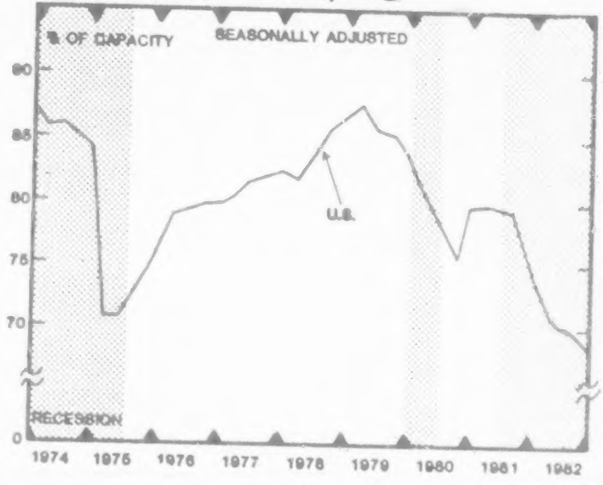
Index of Industrial Production [1]



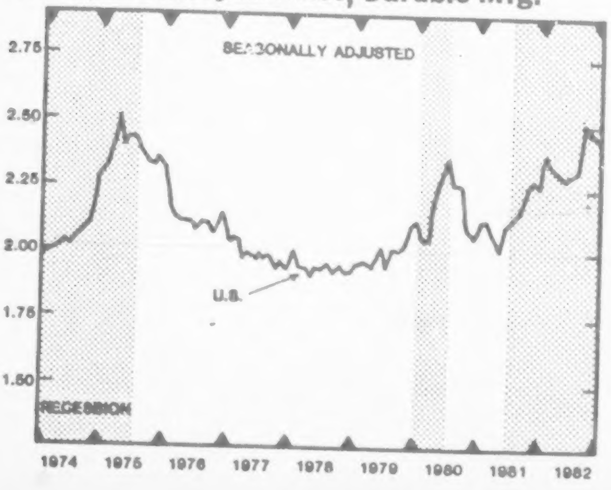
Composition of GNP in Percent



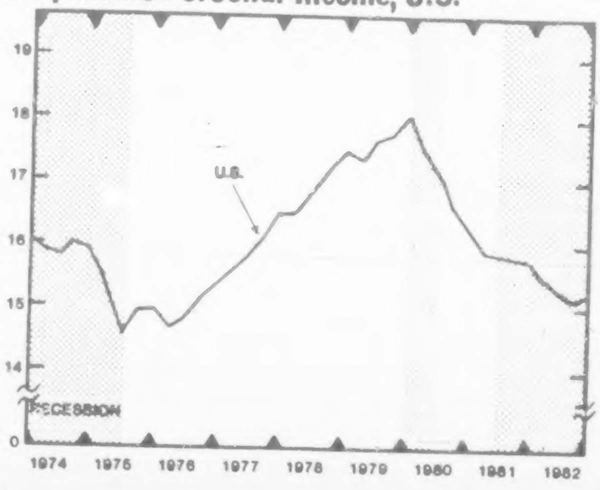
Plant Utilization Rates, Mfg. [1]



Ratio, Inventory to Sales, Durable Mfg.



Ratio, Consumer Installment Debt to Disposable Personal Income, U.S.



Technical Notes

For the reader's convenience the notes which follow are organized in sequence for the pages which appear in the statistical section. Each note corresponds to the footnote or reference notation for the given page.

* Wherever an asterisk appears the data is seasonally adjusted.

Page S-2

1/ Four percent is a generally agreed upon criteria for measuring full employment. It allows for the movement of persons between jobs. Labor Force Unemployment Rate less four percent, based on officical estimates.

2/ Estimated worker hours expended in nonfarm payroll employment as a percent of potential worker hours assuming that each member of the nonfarm labor payroll labor force was employed at a standard rate of 40 hours per week.

Page S-3

1/ The handbook unemployment rate is the estimate of unemployment prior to the Current Population Survey (CPS) adjustment.

Page S-7

1/ In billions of dollars at an annual rate.

2/ The contribution to total Personal Income of wages, salaries, and other labor income. Percent change entry in Labor Income Impact is the percent that the change in labor income comprises of the change in total Personal Income. The is not available for Minnesota on a quarterly basis.

3/ The figure for the quarter is the contribution to total Personal Income of proprietor's rental, dividend, and interest income. The percent change entry in Property Income Impact is analogous to the Labor Income Impact described in 2/ above.

4/ The contribution to total Personal Income of transfer payments (unemployment compensation, AFDC, etc.) The percent change entry is analogous to the Labor Income Impact in 2/ above.

5/ In dollars at an annual rate.

6/ In dollars per week.

7/ Real average weekly earnings are the average weekly earnings of production workers in manufacturing divided by the CPI.

8/ Annual data.

9/ Value is revised CPI. (See "Program Notes," P. 6, First Quarter 1978 Review.)

Page S-9

1/ U. S. data annualized in thousands. Source: Bureau of the Census.

2/ Base Year is 1967. Source: Federal Reserve Board

3/ Totals may not add due to rounding.

4/ Values shown in percent change columns are deficit as percent of GNP for period citied.

5/ Source: Federal Reserve Board.

Page S-10

1/ Source: Federal Reserve Board.

Available Publications

Nonagricultural Wage & Salary Employment, Hours & Earnings, January 1974 - January 1982, Minnesota (June 1982)

Employment, Hours, and Earnings, 1970-1982, Minneapolis-St. Paul Area (June 1982)

1980 Occupational Employment Statistics in Minnesota (May 1982)

1981 Occupational Employment Statistics in Minnesota (November 1982)

Important Minnesota Occupations by Industry (January 1983)

Minnesota Employment Outlook to 1985 (January 1981)

Minneapolis-St. Paul SMSA Employment Outlook to 1985 (March 1982)

Review of Labor and Economic Conditions and its Monthly Supplement (Recent Issues)

Statistical Supplement to the Annual Report of the Department of Economic Security (September 1981)

Unemployment Compensation Program Statistics: Total Wages, Taxable Wages, Contributions Due, and Benefits Paid, 1950-1978 (April 1980)

Minnesota Employment and Wage data by County (Second Quarter 1982) Limited number available for 1975-1981

Average Covered Employment & Wages by Economic Region for the Calendar Year 1981 by two Digits of Industry (also available for 1976-1980)

Occupational Hiring Patterns in Minnesota (October 1981)

Characteristics of Unemployment Insurance Claimants, 1981 (March 1982)

The Economic Outlook for 1983 (February 1983)

Minnesota Labor Market Information Directory (April 1982)

1982 Minnesota Salary Survey by Area (August 1982)

1982 Minnesota Hospitals and Nursing Homes Salary Survey (September 1982)

1982 Minnesota Wage Data by Industry and Size of Firm (September 1982)

Labor Market Information Summary for 1982 for Minnesota (August 1982), Minneapolis-St. Paul SMSA (May 1982), St. Cloud SMSA (May 1982), Duluth SMSA (August 1982), and Rochester SMSA (August 1982)

These publications are available upon request while supply lasts.

Write to: Director, Research and Statistical Services Office
Minnesota Department of Economic Security
390 North Robert Street
St. Paul, Minnesota 55101

CURRENT MINNESOTA LABOR MARKET CONDITIONS S4160-3

March 1983 Supplement to The Review of Labor and Economic Conditions
Prepared by the Research and Statistical Services Office, MN Dept. of Economic Security, 390 N. Robert St., St. Paul MN 55101, in cooperation with the U.S. Department of Labor, Bureau of Labor Statistics, and Employment and Training Admin.

Nation

The Nation's economy continued to improve in February, though not as vigorously as in January when most of the economic barometers performed favorably. Economists expect the economy to continue to recover, but at a slower rate than in previous upturns.

The employment picture was not as bright as it was in January. February's seasonally adjusted unemployment rate remained at 10.4 percent while both total and nonfarm payroll employment declined after seasonal adjustment. A small February drop left total employment close to the 91.1 million level that has prevailed since November. Seasonally adjusted nonfarm payroll employment, however, fell by 180,000 in February after a rise of 330,000 in January. Most of the change in both months may have been due to seasonal adjustment problems which caused employment in construction and retail trade to rise strongly in January and then to fall sharply in February. Nevertheless, manufacturing employment continued to edge upward. Until the gain in January, factory employment had declined in every month since July 1981.

Other economic reports for February and the first quarter showed a mixture picture. The very early release of gross national product (GNP) revealed that real GNP grew at an annual rate of 4 percent in the first quarter. Also, industrial production advanced for the third straight month and housing starts and permits rose higher. On the other hand, retail sales fell for the third consecutive month while personal income and spending was nearly flat.

State

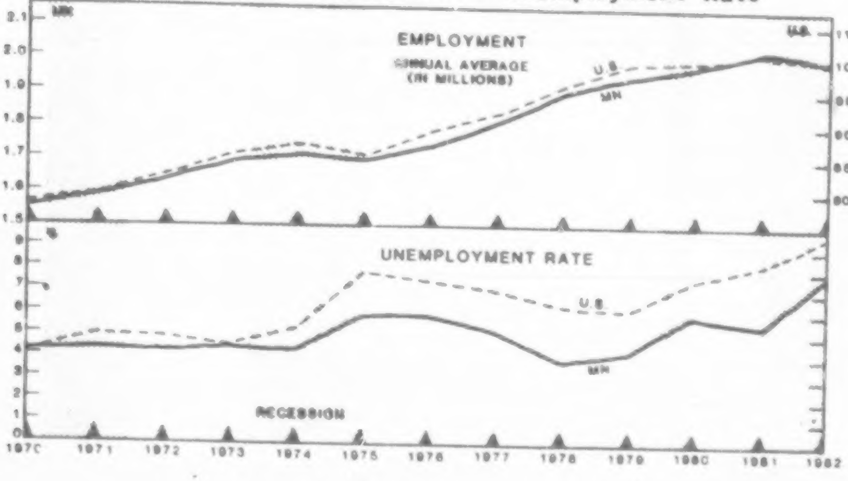
Economic conditions in Minnesota in February showed little change from January. The unemployment rate held steady while total employment declined slightly and seasonally adjusted nonagricultural wage and salary employment rose fractionally.

Minnesota's seasonally unadjusted unemployment rate remained at 10.3 percent in February. The average of the January to February rate changes for the past thirteen years showed an increase of less than a tenth of a point. Unadjusted total employment which usually rises modestly in February declined by a small amount this February. Although seasonally adjusted nonfarm payroll employment increased by only 900 in February, the gain was the second in the last two months. Before the rise in January, payroll employment had risen in only two months since September, 1981. Over two-thirds of the increase in payroll jobs since December took place in the manufacturing and trade sectors. However, wage and salary employment in February was still 49,000 below the year earlier total and 81,000 below the recent high in September 1981.

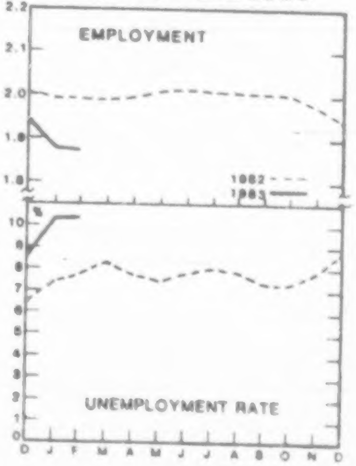
Even if the national economy continues to recover at a satisfactory pace, the Minnesota economy probably won't show much improvement before May. Some economists in the State believe that the recovery in Minnesota will lag that of the Nation by as much as six months. However, there is no solid documentation for such a prediction.

Labor Force Estimates	MINNESOTA (Numbers in '000's)			UNITED STATES (Numbers in '000,000's)		
	February 1983	Change From Last Mo.	Change From Year Ago	February 1983	Change From Last Mo.	Change From Year Ago
Civilian Labor Force	2096.4	-3.6	-18.7	109.7	-0.1	1.4
Employed	1879.4	-3.5	-70.2	97.3	0.0	-0.6
Unemployed	217.0	-0.1	51.5	12.4	-0.1	2.0
Unemployment Rate						
Actual	10.3	0.0	2.5	11.3	-0.1	1.7
Seasonally Adjusted	n.a	n.a	n.a	10.4	0.0	1.6

MN and the U.S., Employment & Unemployment Rate



MN, 1982 and 1983



Minnesota Nonagricultural Wage & Salary Employment, Hours, and Earnings

INDUSTRY	EMPLOYMENT1/ (thousands)			PER CENT CHANGE FROM		PRODUCTION WORKERS' HOURS & EARNINGS					
						Average Weekly Earnings		Average Hourly Earnings		Average Weekly Hours	
	Feb. 1983	Jan. 1983	Feb. 1982	Jan. 1983	Feb. 1982	Feb. 1983	Jan. 1983	Feb. 1983	Jan. 1983	Feb. 1983	Jan. 1983
TOTAL NONAGRICULTURAL	1651.9	1648.8	1698.5	0.2	-2.7						
MANUFACTURING	330.2	329.4	350.0	0.2	-5.7	375.80	371.94	9.49	9.44	39.6	39.4
Durable Goods	195.8	195.4	211.4	0.2	-7.4	381.64	377.74	9.47	9.42	40.3	40.1
Furniture, Lumber and Wood	12.7	12.8	12.4	-0.6	2.7	384.23	385.84	9.98	9.97	38.5	38.7
Stone, Clay and Glass	6.9	7.1	6.8	-2.8	1.5	362.11	366.31	9.43	9.49	38.4	38.6
Primary Metals	5.0	5.0	6.1	-0.4	-19.1	343.14	340.23	9.03	8.93	38.0	38.1
Fabricated Metals	32.4	32.6	34.3	-0.7	-5.5	429.91	423.69	10.46	10.41	41.1	40.7
Nonelectrical Machinery	76.8	76.8	86.3	0	-11.0	389.30	388.90	9.66	9.65	40.3	40.3
Electrical Machinery	25.4	25.6	26.3	-0.7	-3.2	338.15	330.17	8.37	8.38	40.4	39.4
Transportation Equipment	5.8	4.8	5.7	22.0	2.0	399.96	342.00	10.10	9.00	39.6	38.0
Other Durable Goods 2/	30.7	30.7	33.5	-0.1	-8.3	366.17	366.21	8.76	8.74	41.8	41.9
Nondurable Goods	134.4	134.0	138.6	0.4	-3.0	367.09	365.54	9.51	9.47	38.6	38.6
Food and Kindred	42.9	43.1	44.3	-0.4	-3.0	346.21	351.55	8.90	8.90	38.9	39.5
Textile and Apparel	4.6	4.5	5.5	0.4	-17.5	226.35	214.90	6.27	6.14	36.1	35.0
Paper and Allied	31.6	31.7	32.5	-0.2	-2.8	445.30	441.15	10.38	10.38	42.9	42.5
Printing and Publishing	35.3	35.0	35.2	0.8	0.4	357.06	356.73	10.41	10.34	34.3	34.5
Chemical and Petroleum	9.0	8.7	9.3	3.3	-3.1	402.73	384.56	10.17	10.12	39.6	38.0
Rubber and Leather	11.0	10.8	11.8	1.7	-6.7	306.10	298.72	7.93	7.82	38.6	38.2
NONMANUFACTURING	1321.7	1319.4	1348.5	0.2	-2.0						
Mining and Quarrying	7.6	7.9	13.0	-2.7	-41.0	476.33	474.08	13.38	13.43	35.6	35.3
Metal Mining	6.5	6.6	11.7	-2.7	-44.8	497.72	497.72	14.18	14.18	35.1	35.1
Construction	43.5	45.5	48.9	-4.3	-11.0	520.51	530.28	14.58	14.73	35.7	36.0
Building	12.6	13.2	15.1	-4.6	-16.8	469.69	486.13	12.66	13.21	37.1	36.8
Highway and Heavy	3.8	4.0	4.5	-3.0	-15.3	415.03	433.93	10.78	11.51	38.5	37.7
Special Trades	27.1	28.3	29.3	-4.4	-7.4	561.56	567.46	16.23	16.03	34.6	35.4
Transportation	59.4	59.0	61.1	0.5	-2.8	370.14	366.18	9.95	9.87	37.2	37.1
Railroads	13.3	13.3	13.9	0	-4.6	463.59	463.59	10.10	10.10	45.9	45.9
Trucking and Warehousing	21.9	21.7	23.1	0.8	-5.1	422.44	421.39	11.80	11.87	35.8	35.5
Public Utilities	32.7	32.8	34.0	-0.2	-3.8	475.14	471.22	12.09	11.96	39.3	39.4
Communications	18.7	18.9	19.9	-0.7	-5.7	427.74	428.51	11.11	11.13	38.5	38.5
Elec., Gas and Sanitary	14.0	13.9	14.2	0.4	-1.2	526.91	519.14	13.14	12.85	40.1	40.4
Trade	411.2	414.9	419.4	-0.9	-2.0	213.74	215.16	7.27	7.22	29.4	29.8
Retail	303.1	306.5	307.7	-1.1	-1.5	166.34	168.64	6.23	6.20	26.7	27.2
General Merchandise	42.9	44.8	46.1	-4.2	-7.0	161.15	161.49	5.86	5.83	27.5	27.7
Food Stores	43.3	43.9	43.5	-1.3	-0.5	204.27	206.82	7.51	7.36	27.2	28.1
Automotive	32.8	32.7	33.1	0.3	-0.9	235.17	239.67	7.02	7.07	33.5	33.9
Eating and Drinking	99.4	98.9	99.2	0.5	0.2	98.79	98.01	4.66	4.58	21.2	21.4
Wholesale	108.1	108.4	111.7	-0.3	-3.2	373.84	373.26	9.71	9.67	38.5	38.6
F.I.R.E.	97.1	97.2	97.4	-0.1	-0.3						
Finance	46.0	46.1	45.8	-0.1	0.4						
Insurance	35.4	35.4	35.5	-0.1	-0.3						
Real Estate	15.7	15.7	16.1	-0.2	-2.5						
Service Industries	377.7	375.4	373.7	0.6	1.1						
Hotel and Lodging	19.0	18.8	16.6	1.1	2.2						
Business Services	56.0	55.0	54.1	1.8	3.5						
Health Services	133.7	133.5	130.1	0.2	2.8						
Private Education	24.4	23.8	24.0	2.5	1.9						
Soc. Serv., Museums etc.	80.5	80.3	81.5	0.2	-1.2						
Government	292.5	286.7	301.0	2.0	-2.8						
Federal	29.9	29.7	30.1	0.6	-0.8						
State	74.7	73.0	74.6	2.4	0.1						
Local	188.0	184.1	196.3	2.1	-4.2						

1/ Totals may not add because of rounding.

2/ Includes Scientific Instruments and Miscellaneous Industries.

Labor Force Data: State, SMSAs, and Counties

Area or County	February, 1983 Prelim.		
	Labor Force 1/	Unemp.	Un. Rate
State of Minnesota	2096411	216961	10.3
Metropolitan Areas			
Duluth/Superior (Duluth City Only)	36026	5648	15.7
Fargo/Moorhead (Clay County, MN Only)	27010	2277	8.4
Minneapolis/St. Paul SMSA 2/	1140639	91174	8.0
Rochester SMSA (Olmsted Co.)	58885	3865	6.6
St. Cloud SMSA 3/	74735	9113	12.2
Counties			
Aitkin	5419	1436	26.5
Anoka	109670	7199	6.6
Becker	11913	2517	21.1
Beltrami	15843	1982	12.5
Benton	11529	1405	12.2
Big Stone	3723	413	11.1
Blue Earth	28456	2396	8.4
Brown	15000	1665	11.1
Carlton	11863	1989	16.8
Carver	20845	1477	7.1
Cass	9669	1741	18.0
Chippewa	6931	920	13.3
Chisago	14719	1274	8.7
Clay	27010	2277	8.4
Clearwater	4054	1131	27.9
Cook	2106	376	17.9
Cottonwood	6996	586	8.4
Crow Wing	16505	2728	16.5
Dakota	107925	6441	6.0
Dodge	7735	1024	13.2
Douglas	12855	1557	12.1
Faribault	10765	1293	12.0
Fillmore	11607	1367	11.8
Freeborn	17436	1930	11.1
Goodhue	19200	1950	10.2
Grant	3295	353	10.7
Hennepin	519856	27673	5.3
Houston	9119	866	9.5
Hubbard	5391	1014	18.8
Isanti	9977	1375	13.8
Itasca	17670	3979	22.5
Jackson	7407	475	6.4
Kanabec	5331	909	17.1
Kandiyohi	17178	1907	11.1
Kittson	3148	359	11.4
Koochiching	7405	1195	16.1
Lac qui Parle	5450	474	8.7
Lake	4642	1201	25.9
Lake of the Woods	1744	217	12.4
Le Sueur	11372	1724	15.2
Lincoln	3443	372	10.8
Lyon	13798	1264	9.2
McLeod	15984	1777	11.1
Mahnomen	2611	399	15.3
Marshall	6102	1181	19.4
Martin	13440	1380	10.3
Meeker	10524	1649	15.7
Mille Lacs	8639	1237	14.3
Morrison	12570	2108	16.8
Mower	17345	1753	10.1
Murray	5652	631	11.2
Nicollet	14597	1173	8.0
Nobles	11390	948	8.3
Norman	4247	386	9.1
Olmsted	58885	3865	6.6
Otter Tail	23155	3108	13.4
Pennington	6268	902	12.8
Pine	9547	1727	18.1
Pipestone	5274	395	7.3
Polk	15198	1606	10.6
Pope	5232	681	13.0
Ramsey	254835	14453	5.7
Red Lake	2175	442	20.3
Redwood	10205	873	8.6
Renville	10965	1276	11.6
Rice	22902	2568	11.2
Rock	5159	308	6.0
Roseau	5361	965	18.0
St. Louis (Inc. Duluth)	94521	21793	23.0
Scott	24824	1933	7.8
Sherburne	13967	1945	13.9
Sibley	8059	1004	12.5
Stearns	49239	5763	11.7
Steele	15765	1479	9.4
Stevens	5594	513	9.2
Swift	5988	707	11.8
Todd	11109	1337	12.0
Traverse	2566	318	12.4
Wabasha	9090	1181	13.0
Wadena	5331	883	16.6
Waseca	8647	935	10.8
Washington	63251	3876	6.1
Watonwan	6408	635	9.9
Wilkin	4075	409	10.0
Winona	21793	2600	11.9
Wright	34024	3198	9.4
Yellow Medicine	7219	700	9.7

Technical Notes:

1/ Labor force data is computed according to BLS methodology. The method includes an adjustment to assure that the sum of the substate areas equals the separately estimated State total. This adjustment is applied to all county and SMSA areas. County and area unemployment was multiplied by an adjustment factor of 1.44 ; employment was multiplied by 1.01. For a more detailed explanation see the Review of Labor and Economic Conditions, Vol. 4, No. 4, (February 1978 issue), p. 29.

2/ Anoka, Carver, Chisago, Dakota, Hennepin, Ramsey, Scott, Washington, and Wright Counties.

3/ Benton, Sherburne, and Stearns Counties.

Selected Minnesota Program Statistics

Characteristics of the Insured Unemployed

Tables 1 and 2 provide data on persons who filed a claim for unemployment compensation in Minnesota during the month. Only those claiming benefits from the regular State program are represented since data on the characteristics of Federal employees and veterans are not available.

The total number of claimants for unemployment benefits fell by 921 or 1 percent in February. Although the decline was modest and the number of claimants was still very high, February's decline was the first decrease in claimants in February since 1979 when the economy was still expanding. The largest over-the-month reductions were among claimants in mining and manufacturing. February's drop in manufacturing was even steeper than in 1979. Over-the-year, the number of claimants was up by 6,437 or 8.3 percent. Even though the claimant total in February exceeded the year earlier level for the sixteenth consecutive month, the over-the-year gains have been getting increasingly smaller in each month since August. However, claimants in mining were substantially above the year ago number.

Table 1. Distribution of Insured Unemployed, By Age and Sex, February, 1983

Age Groups	Number	Percent Distributions		
		Men of Totals	**Men of Men**	**Women of Women**
TOTALS	83578	76.1	100.0	100.0
Under 45	64642	77.1	78.3	74.2
Under 25	18458	75.9	22.0	22.3
25-34	30745	79.1	38.2	32.1
35-44	15439	74.4	18.1	19.8
45 and Over	18936	72.8	21.7	25.8
45-54	10754	73.4	12.4	14.3
55 and Over	8182	72.1	9.3	11.5

Table 2. Distribution of Insured Unemployed By Industry and Occupation, February, 1983

Industry and Occupational Attachment	Number	Percent of Total	Percent Long-Term Unemployed 1/	Women as Percent of Total
Total, All Industries	83578	100.0	19.3	23.9
Ag., For., Fish.	2297	2.8	10.1	12.0
Mining	4766	5.7	34.5	4.5
Construction	22762	27.2	7.5	2.9
Manufacturing	22514	26.9	23.5	32.9
Pub. Utilities	3677	4.4	13.5	14.3
Wholesale Trade	5521	6.6	22.9	20.3
Retail Trade	8920	10.7	22.3	42.1
Fin., Ins., Real Est.	1505	1.8	31.6	54.7
Services	9432	11.3	28.4	48.6
Public Admin.	1501	1.8	22.0	31.6
Inf. Not Available	683	0.8	6.4	21.4
Total, All Occupations	83578	100.0	19.3	23.9
Prof., Tech., Mgr.	7463	8.9	32.4	35.5
Clerical	6764	8.1	30.6	77.6
Sales	2643	3.2	26.9	38.0
Services	5031	6.0	26.5	55.9
Farm., For., Fish.	1823	2.2	12.6	13.2
Processing	3554	4.3	8.1	41.4
Machine Trades	5549	6.6	26.9	13.5
Benchwork	7181	8.6	24.7	51.8
Structural Work	25914	31.0	9.5	1.9
Misc.	17398	20.8	18.9	8.6
Inf. Not Available	258	0.3	25.6	36.0

1/ Long-Term unemployed refers to unemployment insurance claimants whose current spell of unemployment has lasted 15 weeks or longer.

Job Service Applicant Supply and Demand

Table 3 compares Job Service (J.S.) job applicants with the J.S. job openings that existed at the end of the month. These comparisons are expressed as supply/demand ratios. Other things being equal, the greater the ratio of applicants to openings, the greater the competition has been for work within that occupational category. To put these ratios into context, the reader must remember that not only do job seekers and employers in general find jobs or recruit workers through other means, but those interested in certain kinds of jobs are particularly unlike to use the J.S. For example, worke seeking professional and Manageria jobs are least likely to use the J.S., whereas employers usually recruit construction workers through union halls and hire teachers directly. Thus, the main value of Table 3 is that it reflects, for broad occupational groups, the relative labor market conditions that those using the J.S. encountered when seeking work.

Table 3. Experienced Supply/Job Openings Demand1/

Occupation	Applicants (Supply) Feb. 1983	Job Openings (Demand) Feb. 1983	Supply/Demand Ratio	
			Feb. 1983	Feb. 1982
Total	137201	12860	10.7	9.9
Prof., Tech., Mgr.	19799	1817	10.9	10.1
Clerical	21979	2757	8.0	9.8
Sales	6550	1372	4.8	4.6
Dom. Services	1271	557	2.3	10.7
Other Services	17737	1990	8.9	5.1
Farm., Fish., For.	2464	476	5.2	3.4
Processing	3599	154	23.4	9.7
Machine Trades	11094	319	34.8	18.2
Benchwork	9894	416	23.8	20.8
Structural Work	21476	1008	21.3	32.7
Mtr. Frght., Trans.	6742	282	23.9	21.9
Pkg. & Mat. Hndlg.	12708	1611	7.9	14.7
Other	1889	93	20.3	21.2

1/ Inexperienced and improperly coded job applicants are not included in this table.

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REVIEW OF LABOR AND ECONOMIC CONDITIONS

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All signed articles appearing in this publication together with the Editorial Comment represent the views of the author or editor and not necessarily those of the Department. Questions or comments to the authors may be directed to the Research and Statistical Services Office of the Minnesota Department of Economic Security, 390 N. Robert Street, St. Paul, Minnesota, 55101 or (612) 296-6545.

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Editorial Comment

SOME NEW FEATURES

By R. Pinola

As a producer and disseminator of labor market information, we publish material that adds to our knowledge of labor market and economic conditions. With this issue of the Review, we begin publishing forecasts of real GNP and Minnesota payroll employment on a regular basis. These forecasts are produced by Charles Cline of our research staff, using the Vector Autoregression model developed for us by Rao Aiyagari. We hope that readers will find these forecasts not only interesting, but useful in assessing future labor market conditions. In the months ahead, we will introduce readers to regular forecasts of unemployment insurance cash flows, together with periodic comments on structural changes taking place in Minnesota's economy, particularly on how these changes affect the various demographic and occupational groups of our population. Naturally, we would appreciate any comments on these features from our readers.

A NEW ROLE FOR UNEMPLOYMENT INSURANCE

Although recent debates on Workers' Compensation and Unemployment Insurance (U.I.) have focused primarily on the cost and financing of these programs, new interest, albeit belated, is developing with respect to the purpose of these programs and how they can (should) be integrated with overall manpower and economic policy. In the case of U.I., a variety of proposals have surfaced for blending jobless benefits with training. These have ranged from the use of vouchers based on benefit eligibility to outright referrals of recipients to training programs. In Europe, direct linkages between U.I. and training is fairly well established, using different criteria on which the linkages are based. Even these systems, however, lack the universality that may be preferable to schemes that are restricted to particular classes of workers or conditions.

Eight years ago, we suggested that the time had come when our U.I. system might be transformed into one of lifetime wage credits, to be used by the worker at his or her discretion to underwrite periodic training that went beyond the current (usually 26 weeks) limitation on "approved" training. To provide a disincentive against the frivolous use of our option, we recommended that training could be limited to an accepted list of programs by the State Department of Education and for which specific skills are in demand. To further preclude the frivolous use of the option, we suggested that an individual be permitted to draw out some portion of unexpended wage credits upon permanent retirement from the work force. This portion could be a prorated share based on contributions that the individual had made to the fund or some other acceptable scheme.

Financing of the lifetime wage-credit program could be established on essentially the same basis as the current U.I. system, except that workers would also contribute.1/ With both the worker and employer contributions based on experience-rating, there would be an added inducement not to utilize the wage credits to satisfy every whimsy or fancy that might otherwise be tempting.

1/ Workers already contribute in 17 Industrial nations.

Moreover, with only the employer paying under current legislation, there is evidence that intensive job search is often postponed until benefit eligibility is exhausted. With workers not only sharing in the financing of the program, but able to have more control over the use of their wage credits, we create a condition where social (fiscal) responsibility and individual responsibility become an integral part of the system. It seems that if we are as concerned about the need for human capital formation as physical capital formation, we should be prepared to promote and establish social policy that promotes the former equally with the latter.

Looking at current U.I. programs, it is obvious that they do not really encourage human capital formation. It might even be said that they actually discourage human capital formation by paying people to be idle. We think this is contrary to social policy. It should also be noted that current legislation provides no reward to the worker who through diligence and good work habits manages to remain employed. We feel that a lifetime wage-credit system of the type suggested here would induce those whose skills and competencies are in jeopardy to either upgrade those skills or obtain new marketable ones without having to wait for the inevitable to happen, while at the same time making the system more equitable in terms of benefits received. Since U.I. is, in reality, a system of deferred wages, a system of lifetime wage-credits would provide the diligent worker and who possesses good work habits with some equitable sharing of those accrued wage deferrals upon retirement. It is also telling employers and workers that the cost of lifetime wage credits for promoting human capital formation is no less a legitimate cost than depreciation allowances on plant and equipment. In fact, we would recommend that the workers' contributions be deductible on both Federal and State income taxes as a legitimate expense, just as employer-paid taxes are an accepted cost of doing business. Obviously, we do not expect the lifetime wage-credit system to eliminate unemployment or the necessity of paying U.I. benefits to idle workers, but it would introduce an element of social and individual responsibility that is currently lacking into the system.

Research Summaries

EMPLOYMENT OF SCIENTISTS, ENGINEERS, AND TECHNICIANS IN THE MANUFACTURING SECTOR, 1977-80

By B. Steuernagel

One of the distinguishing characteristics of "high technology" industries is a greater than average concentration of engineering and scientific skills and capabilities which are required to generate a rapid series of technological advancements. The National Science Foundation (NSF) recently analyzed national trends in the employment of scientists, engineers, and technicians in the manufacturing sector between 1977 and 1980 utilizing the data collected by the Occupational Employment Statistics Program. This article summarizes the NSF study[1] and compares the employment growth of scientists, engineers, and technicians in Minnesota's manufacturing industries in U.S. growth.

In 1977 there were approximately 1,100,000 people working as scientists, engineers, and technicians (SET) in the Nation's manufacturing industries, approximately 6 percent of total manufacturing employment. Between 1977 and 1980, employment of SET personnel grew by nearly 20 percent while total manufacturing employment grew by only 2.6 percent. According to the study, SET personnel accounted for 45 percent of total manufacturing employment growth during the three year period.

There are several reasons for the rapid growth of SET jobs during the period studied. First, a small part of SET employment was generated by the modest employment gains made by the manufacturing sector as a whole. Secondly, product demand was not uniform across all manufacturing industries. Demand was much stronger in the durable goods high technology industries. The recession of January through July 1980 adversely affected employment in the non-high tech manufacturing industries such as lumber and steel while employment in the computer industry grew by over 18,500 jobs. As mentioned in the introduction, since high-tech industries are more reliant on SET personnel, overall employment growth in the high-tech industries contributed to more rapid increases in SET occupational growth. The primary factor causing rapid growth in SET employment, according to the study, involved changes in industrial staffing patterns. In durable goods industries, nearly 75 percent of SET employment growth resulted from changing staffing patterns - a growing share of total employment held by SET jobs. The growing concentration of SET personnel was most evident in the 13 manufacturing industries which experienced declines in total employment between 1977 and 1980. Instead of declining by 3 percent as might have been anticipated, SET employment grew by 11 percent. Although this indicates a structural shift in the staffing pattern, it is not yet evident whether there is a long-term shift in the occupational structure favoring SET personnel or merely a short-term shift due to the impact of the recession on production occupations.

The following table shows the employment growth of major SET occupations in the manufacturing industries between 1977 and 1980 in the Nation.

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[1] Changing Employment Patterns of Scientists, Engineers, and Technicians in Manufacturing Industries: 1977-80. (NSF 82:331) National Science Foundation, Division of Science Resources Studies, Washington, D.C. 20550.

Table 1. U.S. Science, Engineering, and Technician Occupational Employment in Manufacturing

Occupation	Employment (Thousands) 1977	Employment (Thousands) 1980	Change Percent 1977-80
Scientists, total	122	145	19
Chemists	54	57	5
Computer systems analysts	40	53	32
Life	9	11	22
Mathematical	9	8	-17
Other	12	17	44
Engineers, total	506	606	20
Electrical/electronic	142	160	13
Mechanical	112	127	13
Industrial	63	123	95
Other	189	196	4
Technicians, total	494	594	20
Electrical/electronic	106	136	28
Engineering, except electrical/ electronic	224	253	13
Computer programmers	50	73	45
Science	61	71	18
Other	53	61	16
Total, All Manufacturing Employment	19,721.3	20,227.8	2.6

The results of the Occupational Employment Statistics surveys of manufacturing in Minnesota in 1977 and 1980 show that SET employment grew by 33.7 percent while total manufacturing employment grew by 9.7 percent.

Table 2. Minnesota Science, Engineering, and Technician Occupational Employment in Manufacturing

Occupation	Employment 1977	Employment 1980	Percent Change 1977-80
Scientists	1,880	3,170	68.6
Engineers	11,630	15,310	31.6
Technicians	15,090	19,760	30.9
Total, All Manufacturing Employment	338,420	371,330	9.7

Employment of chemists and computer systems analysts make up about 75 percent of the total number of scientists employed in manufacturing both in the Nation and Minnesota. Employment of chemists grew primarily as a result of their importance in the development of new product lines, their contribution to the fields of energy and pollution control, and general increases in R&D funds available to major industrial employers of chemists. Employment of computer systems analysts increased very rapidly as computer technology was applied to manufacturing functions. The supply of computer systems analysts was created by a high degree of mobility from personnel in other science and engineering fields. For example, of the 21,000 computer scientists in 1980 who had received bachelor's and master's degrees in science and engineering fields two years earlier, only 40 percent had majored in computer science. Those who had majored in math accounted for 22 percent, engineering majors made up 11 percent, and social science majors made up 9 percent.

About one-half of all engineers in the country work in the manufacturing sector. Over-two-thirds of the 606,000 engineers are employed in three fields: electrical/ electronic, mechanical, and industrial. Between 1977 and 1980, employment of industrial engineers grew at a faster rate than any other SET field in manufacturing. According to the NSF study and industrial engineering professional societies, this rapid growth was a reflection of industry's increased concern about productivity growth, cost reduction, and quality improvement.

The two largest technician occupations in the manufacturing sector are electrical/ electronic technicians and drafters. Data for Minnesota shows that computer programmers and electrical/electronic technicians were the largest in terms of employment. Nationally, the employment of electrical/electronic technicians has grown rapidly in conjunction with the strong demand for electrical/electronic engineers in the development and application of microelectronics telecommunications, office automation, and robotics.

The Job Market

THE HEALTH AND MEDICAL SERVICES INDUSTRY

By B.J. Jones

Employment in the Health and Medical Services Industry has suffered little from the general business cycle. The steady growth over the past 22 years has resulted in a trippling of employment in Minnesota since 1960. While most industries in Minnesota have posted losses in the monthly employment when compared to year-ago figures, the Health and Medical Service Industry has shown modest gains. This article will look briefly at the Health and Medical Services Industry.

The Industry

The Health and Medical Services Industry includes establishments primarily engaged in furnishing medical, surgical, and other health services to persons. Associations or groups primarily engaged in providing medical or other health services are included. Health services included in this group are offices of physicians, dentists, osteopathic physicians, chiropractors, optometrists, and health practitioners, hospitals, nursing and personal care facilities, medical and dental laboratories, outpatient care facilities, and other miscellaneous health and allied services such as blood banks, medical photography and art, and visiting nurses' associations.

There are 4,900 Health and Medical Service establishments in Minnesota employing 134,400 workers. This industry comprises eight percent of the State's nonagricultural wage and salary employment. Approximately 55 percent of these workers are employed in the Minneapolis-St. Paul nine-county metropolitan area. Employment in this industry grew by 52.3 percent from 1970 to 1978 and is expected to increase another 31.5 percent by 1985.1/

Approximately 45 percent of these employees work in hospitals, 27 percent in nursing homes, and 15 percent in Doctor's offices. The remaining 13 percent are dispersed among the Dentists and Health practitioners offices, medical and dental laboratories, and outpatient care facilities.

Occupational Staffing Patterns

Occupational staffing patterns for the Health and Medical Services Industry, as shown in Table I, indicate that over 90 percent of the workers fall into three broad occupational categories; namely, Service Workers, Professional and Technical Workers, and Clerical Workers.

Service Workers comprise the largest proportion (45 percent) of the workers in this industry. After increasing by 51 percent from 1970 to 1978, the employment of Service Workers is expected to rise another 33 percent by 1985, with the proportion of Service Workers remaining fairly constant (44.6 to 45.0 percent). Ninety percent of the employees in this category are represented by the following occupations: Nurses Aides/Orderlies (42.8 percent), Licensed Practical Nurses (13.6 percent), Interior Building Cleaners (8.7 percent), Food Service Workers (6.9 percent), Health Aides, except nursing (6.4 percent), Dental Assistants (5.1 percent), Janitors and Sextons (4.6 percent), and Cooks (4.0 percent).

1/ All references to 1985 employment or staffing patterns are based on data from Minnesota Employment Outlook to 1985, Minnesota Department of Economic Security Research and Statistical Services Office, January 1981.

Although the number of Professional and Technical workers is increasing, there appears to be a downward trend in their strength in this industry. The number of Professional and Technical workers rose by 48 percent from 1970 to 1978 compared with 52 percent for the industry, and is expected to rise another 25 percent by 1985 compared with a projected 32 percent increase for the industry. This is partly due to the relatively slow expansion in the number of Registered Nurses. They comprise 37.0 percent of the Professional and Technical Workers and their number expanded at the rate of 34 percent and 20 percent for the 1970-78 and 1978-85 periods respectively. In addition to Registered Nurses, the other major occupations in this category are Clinical Laboratory Technicians and Technologists (11.6 percent), Dentists (5.7 percent), Therapists (5.1 percent), and Radiological Technicians and Technologists (4.0 percent).

An upward trend in the proportion of Clerical employees is also noticeable in Table I. They experienced strong growth during the 1970-78 period (59 percent) and are expected to increase another 36 percent by 1985. The dominant occupations in this field are: Receptionists (27.0 percent), General Secretaries (21.2 percent), Miscellaneous Clerical Workers (12.7 percent), Bookkeepers (11.0 percent) Medical Secretaries (8.1 percent) and Typists (4.5 percent).

Workers in the remaining six broad occupational categories constitute eight percent of the industry's total employment. Among the Craft workers, Stationary Engineers (23.3 percent) and Dental Laboratory Technicians (22.2 percent) dominate. Other occupations in the Craft field with significant numbers are Blue Collar Worker Supervisors (9.7 percent), Painters (7.4 percent), Carpenters (6.8 percent), and Electricians (5.3 percent). Nearly 64 percent of the Operative Workers are Laundry/Dry Cleaning Operatives.

Health Adiministrators account for 76.9 percent of the Managerial occupations, while Office Managers (10.2 percent), Purchasing Agents and Buyers (3.5 percent), Miscellaneous Managers (3.2 percent), and Financial Managers (2.6 percent) round out the list of significant occupations in this category.

Finally, Laborers, who represent less than one percent of the total, fall basically into two groups, Stockhandlers (43.6 percent) and Gardeners and Groundskeepers (33.5 percent).

Overall the employment outlook for this industrial sector should continue to be very good through the 1980s. The greatest number of job opportunities are expected to be for service, technical, and clerical workers.

TABLE I

Occupational Staffing Patterns For The Health & Medical Services Industry2/

	Percent of Industry Employment		
Occupational Groups	1970	1978	1985
Professional, Technical, & Kindred	32.1	31.3	29.6
Managers, Officials, & Proprietors	2.9	3.4	3.3
Sales	0.1	0.1	0.1
Clerical	15.4	16.1	16.7
Craft & Kindred	2.2	1.9	1.9
Operatives	2.1	2.3	2.9
Service	44.9	44.6	45.0
Laborers except Farm	0.4	0.4	0.5
Farm Laborers	0.0	0.0	0.0

2/ Source: *Minnesota Employment Outlook to 1985*, Minnesota Department of Economic Security, Research and Statistical Services Office, January 1981.

SUPPLY/DEMAND FOR SPECIFIC OCCUPATIONS, APRIL 1983[1/]

By S. Hamper

MINNESOTA

Shortage Occupations: computer programmers and systems analysts#, commissioned sales persons#, highly skilled clerical workers#

Surplus Occupations: *general office clerks, retail sales clerks#, construction workers#, welders, machinists#, truck drivers#, factory workers#, general laborers#*

CENTRAL MINNESOTA

Shortage Occupations: commissioned sales persons#

Surplus Occupations: *general office clerks#, retail sales clerks#, waiters/waitresses, welders#, machinists#, assemblers#, unskilled construction laborers#*

MINNEAPOLIS-ST. PAUL

Shortage Occupations: computer programmers and systems analysts#, commissioned sales persons#, highly skilled clerical workers#, fast-food service workers

Surplus Occupations: *truck drivers#, machinists#, factory assemblers#, general laborers#*

NORTHEASTERN MINNESOTA

Shortage Occupations: commissioned sales persons, life insurance sales agents

Surplus Occupations: *electrical engineers#, social workers#, teachers#, entry level managers, mechanical drafters#, secretaries#, typists#, general office clerks#, bookkeepers#, sales clerks#, food service workers, waiters/waitresses#, food production workers#, welders#, heavy equipment operators#, truck drivers#, auto mechanics#, carpenters#, painters#, bricklayers#, pipefitters#, millwrights#, mining workers#, construction and general laborers#*

NORTHWESTERN MINNESOTA

Shortage Occupations: home health care workers, food service workers

Surplus Occupations: *machinists, welders, construction workers#, unskilled factory workers#, general laborers#*

SOUTHERN MINNESOTA

Shortage Occupations: sales representatives#, experienced automotive mechanics, tractor-trailer drivers#

Surplus Occupations: *nearly all occupational skills are well-represented in the active applicant files, but factory/production workers were most frequently mentioned as a significant surplus*

1/ Shortage occupations are those that are difficult to fill or go unfilled due to the lack of qualified applicants. Surplus occupations are those in which the number of qualified applicants greatly exceeds the number of openings.

# This occupation has been listed as a shortage or surplus occupation in at least two out of the last three quarters of the Review.

Job Service Applicant Supply and Demand

Table 1 compares Job Service (J.S.) job applicants with the J.S. job openings that existed at the end of the month. These comparisons are expressed as supply/demand ratios. Other things being equal, the greater the ratio of applicants to openings, the greater the competition has been for work within that occupational category. To put these ratios into context, the reader must remember that not only do job seekers and employers in general find jobs or recruit workers through other means, but those interested in certain kinds of jobs are particularly unlikely to use the J.S. For example, workers seeking professional and managerial jobs are least likely to use the J.S., whereas employers usually recruit construction workers through union halls and hire teachers directly. Thus, the main value of Table 1 is that it reflects, for broad occupational groups, the relative labor market conditions that those using the J.S. encountered when seeking work. Readers who desire information on current shortage and surplus conditions for a specific occupation should refer to the Supply/Demand assessments given above.

Table 1. Experienced Supply/Job Openings Demand1/

Occupation	Applicants (Supply) April 1983	Job Openings (Demand) April 1983	Supply/Demand Ratio	
			April 1983	April 1982
Total	108,196	4,850	22.3	11.2
Prof., Tech., Mgr.	12,853	491	26.2	10.6
Clerical	16,634	892	18.6	10.8
Sales	4,639	795	5.8	4.1
Dom. Services	1,262	81	15.6	8.1
Other Services	14,819	1,062	14.0	5.7
Farm., Fish., For.	2,473	68	36.4	50.7
Processing	2,541	261	9.7	7.5
Machine Trades	7,916	102	77.6	20.1
Benchwork	6,275	141	44.5	21.9
Structural Work	15,959	194	82.3	38.2
Mtr. Frght., Trans.	4,983	112	44.5	18.8
Pkg. & Mat. Hndlg.	11,289	614	18.4	13.9
Other	6,553	37	177.1	30.1

1/ Inexperienced and improperly coded job applicants are not included in this table.

NOTE: The number of job openings appears drastically reduced from the previous few months. This is due to the fact that a large number of openings were listed as cancelled this month. Many of these were openings closed or cancelled over a period of several months, but not properly recorded as such. This problem was finally addressed and many bogus openings were removed from the total openings available count in April.

Feature Article

HIGH TECHNOLOGY: MYTH AND REALITY

By R. Pinola*

High technology has not only become a "buzz" word among the pedants of modern business, but a panegyric to the cult of scientism. Like the obsession with automation in the 1950s, high technology has received inordinate publicity, both good and bad. On the one hand, we have the sophists proclaiming it as the wave of the future and a guarantor of our economic salvation, while on the other hand, the less sanguine regard it with alarm. To add to the confusion, attempts at defining high technology, like defining automation in the earlier days, have been less than auspicious. This article attempts to look at high technology for what it is and to examine some of the myths that seem to prevail about its effects on jobs, employment growth, and education and skill requirements of the labor force.

Defining the Term and the Problems

Conceptually, high technology, like automation, is nothing more than the application of scientific inquiry and knowledge to industrial and commercial processes that have been with us for over two centuries. As such, its application is not unique to any one industry and is found wherever opportunities exist. One can regard Adam Smith's observations over two hundred years ago with respect to the pin factory and the division of labor as an application of high technology of his day. So, too, can the application of scientific methods and processes elsewhere. Over the intervening years, these applications have been pervasive, favoring first one activity and then another. In more recent times, these applications have cut across all industries as the diffusion of new knowledge and techniques became widespread.

Despite the aforementioned observations, high technology in recent years has been treated as if it is a new phenomenon and unique to a few or selected industries. Thus, in a recent article, Ann Lawson proceeds to define high technology industries on the basis of the ratio of science and engineering to total industry employment and the ratio of research and development expenditures to total spending. 1/ She qualifies her choices to those manufacturing industries in which "... accelerating technological growth (is) associated with the germination and evolution stages along their respective S-curves". 2/ Other studies appear to be following essentially the same or similar criteria as those of Lawson. Although we see no great inherent harm in categorizing some industries as high technology industries, the inordinate attention focused on them has led to some clearly questionable and unwarranted assumptions. This focus has taken two forms; namely, the issue of national survival and the promise of jobs growth in an environment requiring increasing skills of the labor force.

1/ See, Ann M. Lawson, "Technological Growth and High Technology In U.S. Industries", In Industrial Economics Review, U.S. Department of Commerce, Spring, 1982.

2/ Lawson employs the familiar S-curve concept in which germination, evolution, and maturation comprise the different stages of growth in which each stage proceeds at a different rate.

*This article was prepared by R. Pinola, Director Research and Statistical Services Office of the Minnesota Department of Economic Security. Richard Johnson and Beverly Jones provided the data tabs on which Tables 2 and 3 are based.

With regard to the issue of national survival, it has been argued that our military capability to defend ourselves and our competitive position in world trade depend heavily on high technology and, therefore, we must give special consideration for its promotion. In some cases, explicit policy formulation for promoting high technology has taken the form of special concessions to high technology industries and recommendations for a re-direction of education effort to the physical sciences. With respect to jobs growth, the implication is that future growth will be reserved for high technology industries and jobs, while other industries and jobs are destined for decline or zero growth. [3/]

As an economist and sometime student of political and social systems, we have no reason to quarrel with the assumption that high technology, regardless of how defined, is a necessary condition for maintaining a strong military posture. However, national survival involves more than military strength. It involves factors that have no relationship to high technology and, in many cases, are so elusive as to defy measurement and control. If the concern is our ability to compete in world trade, it seems that our balance of payments problems are not so much the result of lagging technology as they are of accelerating prices for imported oil, an over-valued dollar, and inflated labor costs. Whether the inflated labor costs are due to fiscal and monetary policies in support of an artificially high aggregate demand and price structure, or whether they are due to the intransigence of labor and poor management is a moot question. The real issue is whether lagging technology has been directly responsible for labor costs in the United States rising faster than abroad in those industries in which our comparative advantage has been slipping. Unfortunately, rhetoric and superficial analyses provide poor answers. In the end, linking national survival and high technology remains a questionable exercise and, therefore, the dividing line line between myth and reality is tenuous.

With respect to the promise of jobs growth and increasing skill requirements of the labor force, one is on more solid ground inasmuch as the available data allows the more straightforward drawing of conclusions. In this regard, we can utilize the delineation of high technology industries that have been made by Ann Lawson and other researchers. We not only can compare employment opportunities in the high technology with other industries, but consider how educational and skill requirements are likely to change as a consequense of projected future growth in economic activity and occupational employment. Table 1, which follows, is a simple matrix that identifies the high technology industries as defined in the studies by Ann Lawson, the Massachusetts Division of Employment Security, and the Florida Department of Commerce. This is not meant to preclude other definitions, only to illustrate the consensus that seems to prevail with regard to defining high technology industries. As can be seen, the industries

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[3/] It is interesting to observe that the "high tech", growth industries are invariably identified as being in the manufacturing sector while at the same time the manufacturing sector is projected to comprise a decreasing portion of total employment.

so identified in all three studies are exclusively in the manufacturing sector and are pretty much in agreement.

Table 1. Industries Defined as High Technology

SIC Code and Industry	Lawson	Massachusetts	Florida
283 Drugs	X	X	X
29 Petroleum Refining	X		
348 Ordnance and Accessories			
357 Office Computing and Accounting Machines	X	X	
3573 Electronic Computing Equipment			X
361 Electric Transmission and Dist. Equipment	X	X	
362 Electrical Industrial Appliances	X	X	
363 Household Appliances	X	X	
364 Electric Lighting and Wiring Equipment	X	X	
365 Radio and TV Receiving Equipment		X	
366 Communications Equipment	X	X	X
367 Electronic Computing Accessories	X	X	X
369 Misc. Electrical Mach Equip. and Supplies	X	X	
372 Aircraft and Parts	X		X
376 Guided Missiles and Space Vehicles	X	X	X
381 Engineering, Laboratory, Scientific and Research Instruments and Equipment	X	X	X
382 Measuring and Controlling Instruments	X	X	X
383 Optical Instruments and Lenses	X	X	X
384 Surgical, Medical, and Dental Instruments and Supplies	X	X	X
385 Opthalmic Goods	X	X	X
386 Photographic Equipment and Supplies	X	X	
387 Watches, Clocks, Clockwork Devices and Parts	X	X	

Because the Lawson study was the most definitive in terms of criteria used to define high technology industries, we adopted it for an evaluation of jobs growth and skill and education requirements. To gain a perspective on employment growth, we compared, for both the U.S. and Minnesota, the past growth rates for these industries against industries not so classified that had high rates of growth in the reference period 1970-81. This was done to see if the emphasis on high technology industries, in contrast to other industries, was warranted. We also made comparisons of projected employment growth rates for the U.S. and Minnesota for the high technology and not-so-classified industries to see if the promise of jobs growth in the high technology industries is justified. These are provided in Tables 2 and 3 for the U.S. and Minnesota. Finally, inasmuch as growth rates by themselves can be misleading, we have included the percentage that high technology and not-so-classified industries comprise of total employment for selected reference years. These percentage values can be employed to evaluate whether the high technology industries are becoming more or less important in their contribution to total employment over the period 1970 to 1990 for the U.S. and 1970 to 1985 for Minnesota.

Table 2. Comparisons of Growth Rates and Percentage of Total Payroll Employment, High Technology and Ten Fastest Growing Not-So-Classified Industries, U.S., 1970-1990. 1/

SIC Code & Industry	Percent Change		Percent of Total Employment		
	1970-81	1981-90	1970	1981	1990
High Technology					
283 Drugs	33.7	14.5	.21	.22	.21
29 Petroleum Refining	12.8	-14.9	.27	.24	.17
357 Office Computing & Acct. Equip	66.3	35.4	.41	.51	.57
361 Electric Trans. & Dist. Equip.	-14.7	14.0	.20	.13	.13
362 Electrical Industrial Appliances	10.8	27.6	.31	.26	.28
363 Household Appliances	-12.2	19.4	.26	.18	.18
364 Electric Wiring & Lighting Equip.	2.9	52.8	.28	.22	.28
366 Communications Equip.	5.3	13.2	.74	.61	.57
367 Electronic Computing Accessories	52.5	19.1	.52	.61	.61
369 Misc. Electrical Machinery & Equip.	24.3	14.1	.17	.16	.15
372 Aircraft & Parts	-2.3	7.2	.94	.71	.63
376 Guided Missiles & Space Vehicles	31.6	17.2	.13	.13	.13
381 Eng., Lab., Science & Res. Instr.	9.9	11.7	.10	.09	.08
382 Measuring & Controlling Instr.	51.0	7.8	.24	.28	.25
383 Optical Instruments & Lenses	45.1	16.4	.03	.04	.04
384 Surgical, Medical, & Dental Instr.	20.6	87.9	.12	.11	.17
385 Opthalmic Goods	16.6	22.0	.05	.05	.05
386 Photographic Equip. & Supplies	21.4	5.7	.16	.15	.13
387 Watches, Clocks, Clockwork Devices	35.1	28.9	.04	.01	.02
Ten Fastest Growing Not-So-Classified					
12 Bituminous Coal & Lignite	56.8	84.5	0.20	0.24	.37
13 Oil & Gas Extraction	154.1	-15.4	0.38	0.75	.53
47 Transportation Services	83.4	8.7	0.16	0.23	.21
58 Eating and Drinking Places	84.2	34.1	3.63	5.21	5.78
64 Insurance Agents & Brokerage Serv.	61.7	11.8	0.41	0.51	.47
67 Holiday & Other Invest. Offices	65.7*	24.2	0.10*	0.13	.14
73 Business Services	94.3	22.4	2.36	3.57	3.62
80 Health Services	81.2	62.6	4.31	6.10	8.21
81 Legal Services	125.6	12.9	0.33	0.58	.55
Total Payroll Employment	28.5	20.7	100.00	100.00	100.00

*Data for 1972 to 1981

1/ The fastest growing were based on 1970-81 experience. To have included the projected fastest growing would have made the table inordinately long. These can, however, be obtained from the author on request.

Table 3. Comparisons of Growth Rates and Percentage of Total Payroll Employment, High Technology and Ten Fastest Growing Not-So-Classified Industries, Minnesota, 1970-1985. 1/

SIC Code & Industry	Percent Change 1970-81	Percent Change 1981-85	Percent of Total Employment 1970	1981	1985
High Technology					
283 Drugs	28.1	8.7	.04	.03	.03
29 Petroleum Refining	-18.3	2.4	.08	.09	.08
357 Office Computing & Acct. Equip.	40.5	7.2	2.13	2.23	2.19
361 Electric Trans. & Dist. Equip.	- 6.2	31.4	.05	.04	.04
362 Electrical Industrial Appliances	19.0	42.9	.39	.24	.30
363 Household Appliances	10.6	8.70	.30	.25	.24
364 Electric Wiring & Lighting Equip.	91.6	6.3	.06	.09	.09
366 Communications Equip.	11.4	8.6	.23	.19	.17
367 Electronic Computing Accessories	96.9	9.5	.37	.55	.52
369 Misc. Electrical Machinery & Equip.	-18.4	20.5	.19	.12	.13
372 Aircraft & Parts	-44.7	32.6	.04	.02	.02
376 Guided Missiles & Space Vehicles	INA	INA	0	0	0
381 Eng., Lab., Science, & Res. Instr.	38.1	13.5	.31	.32	.32
382 Measuring & Controlling Instr.	24.4	3.9	.60	.56	.51
383 Optical Instruments & Lenses	-61.3	225.5	.01	.003	.001
384 Surgical, Medical, & Dental Instr.	474.3	28.5	.09	.37	.41
385 Opthalmic Goods	49.1	38.2	.11	.12	.15
386 Photographic Equip. & Supplies	36.8	8.3	.17	.17	.16
387 Watches, Clocks, Clockwork Devices	*	*	NIL	NIL	NIL
Ten Fastest Growing Not-So-Classified					
24 Lumber & Wood Products	28.9	7.5	0.63	0.61	.57
30-1 Rubber, Plastics, & Leather	56.3	13.7	0.61	0.71	.70
58 Eating & Drinking Places	96.3	14.9	4.13	6.05	6.07
59 Misc. Retail Stores	53.7	12.1	2.15	2.47	2.42
65-6 Real Estate & Services	94.3	11.2	0.66	0.96	.93
73 Business Services	120.7	19.6	1.91	3.14	3.00
75-6 Automotive & Misc. Repair	77.4	25.0	0.71	0.94	.92
78-9 Motion Pictures & Other Amusement	80.2	12.3	0.84	1.13	1.11
80 Health Services	82.7	17.3	5.41	7.38	7.57
81 Legal Services	187.9	5.8	0.25	0.54	.50
Total Payroll Employment	34.0	14.4	100.00	100.00	100.00

*Disclosure rules prohibit publication.

1/ As with the ten fastest growing not-so-classified for the U.S. the reference period was 1970-81. Projected fastest growing for Minnesota are also available from the author on request.

An inspection of Tables 2 and 3 shows that for the period 1970-81, employment in more than 50 percent of the high technology industries grew more slowly than total payroll employment in both the U.S. and Minnesota. This effect is also evidenced in the declining proportion of total employment that occurred between 1970 and 1981 for a majority of the high technology industries. This behavior was in contrast to that of the fast growing industries not classified as high technology.

For the period 1981-90, 13 out of 19 industries classified as high technology showed industry payroll employment growing more slowly than total (all-industry) payroll employment at the national level. This again is reflected in a decline in the proportion of total employment over this period for the industries classified as high technology. In the case of Minnesota, 10 out of the 19 industries classified as high technology showed industry payroll employment growing more slowly than total payroll employment for the period 1981-85. As with national high technology employment this translated into a declining share of total payroll employment for these industries.

Educational Requirements of the Future Labor Force

In tandem with the prediction of high technology as the wave of the future, we are being exposed to admonitions regarding the need to educate the labor force in sophisticated technical skills to meet the demands of a post-industrial society. 4/ These admonitions often include veiled references to hordes of unemployed workers who are unable to secure jobs because they lack the skills required of the new technology. Admittedly, the educational level of the labor force will need to grow in some areas, but to offer an alarmist spector of the future predicated on the primacy of high technology is unrealistic. Let us see why.

An evaluation of the educational requirements of the future labor force can be reasonably accomplished by examining the occupational distribution of projected employment. 5/ For the U.S., the 1990 projections of occupational employment by

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4/ Some pundits characterize the post-industrial society as an information economy in which the production of information will be a new and primary activity as distinct from goods production. Such a view ignores the fact that the development of information for decision-making has long been an important and integral function of all industrial and commercial activity. For example, in 1963, McDonough estimated that over 30 percent of manufacturing employment in the U.S. was primarily concerned with producing and processing information and that 50 percent of the costs of running our economy are information costs. See, Adrian M. McDonough, Information Economic's and Management Systems, McGraw-Hill Book Company, New York, 1963, p. 6 and 11.

5/ An alternative but more complex method would be to study the skill profile along a scale from least to most highly skilled labor to produce a unit of product or service. Such a study was done in the late 1960s by Crossman, et al, for nine industries (SIC Codes 2813, 2911, 3312, 3722, 3723, 4511, 4911, 6022 and 6025). They found while skill levels for direct-labor manhour demands were significantly higher in 2 out of the 7 subtypes of technological advance, they were only moderately significant in 3 out of 7, and were completely lacking for the remaining subtype. More importantly, they not only found skill levels for indirect-labor manhour demands generally declining, but more than offsetting those for direct-labor. See, R.F.W. Crossman, et al, The Impact of Technological Change on Manpower and Skill Demand: Case-Study Data and Policy Implications, University of California, Berkley, February, 1969.

the Bureau of Labor Statistics (BLS) were used. Our evaluation involved looking at future occupational employment in terms of: 1) rates of growth, 2) absolute amount of growth, and 3) number of annual openings. In this context, we developed three tables for analysis; one ranking the 100 fastest growing occupations by rate of growth, another ranking the 100 largest growing occupations by the numerical increase in employment, and a third table ranking the 100 largest occupations by average annual openings due to growth and replacement demand. Given this information, we proceeded to ascertain the educational requirements of these occupations using the Occupational Outlook Handbook, Dictionary of Occupational Titles, and assorted other sources including our own knowledge of educational requirements for particular occupations. This same procedure was used for Minnesota, except that the occupational employment projections are only available to 1985. Based on this procedure, future labor force educational requirements for the U.S. and Minnesota were developed. These are provided in Table 4 which follows.

Table 4. Estimated Educational Requirements for 100 Occupations Ranked by Projected Growth and Employment Opportunities, U.S. and Minnesota.

Preferred or Required Educational Level	Percentage Distribution					
	Fastest Growing		Largest Growing		Av. Annual Openings	
	U.S.	MN	U.S.	MN	U.S.	MN
High School Graduate	51	51	59	61	64	60
Trade or Vocational School	27	28	24	28	20	23
Bachelor's Deg. or Higher	22	21	17	11	16	17

The data in Table 4 makes it abundantly clear that the majority of employment opportunities in the 1980s for the 100 fastest and largest growing occupations will require only a high school education. Had we examined the educational requirements for total occupational employment, the results would have been even more heavily weighted in favor of high school graduates. Moreover, an independent study done by Levin and Rumberger has suggested that, if anything, high technology is more likely to reduce rather than increase the skill requirements for the performance of many existing tasks, thus limiting higher educational requirements to specialized positions or occupations. 6/

6/ See, Henry M. Levin and Russell W. Rumberger, "The Educational Implications of High Technology", Institute for Research on Educational Finance and Governance. Stanford University, February 1983. See, also, remarks on job growth by Ronald Kutscher, Associate Commissioner of the Bureau of Labor Statistics, before the Congressional subcommittee on high technology and robotics, as reported in The Employment and Training Reporter, Volume 14, Number 37. p1205.

In summary, it is evident that the delineation of selected industries as high technology, while a harmless exercise in some respects, can lead to poor policy formulation without careful examination. Based on our analysis, we found the heroic assumptions regarding future job growth and educational requirements of high technology to be untenable. In fact, it is possible that high technology will actually lower rather than increase the skill requirements for many tasks now being performed by our work force. In the end, as with many myths, it appears that placing too much faith in high technology can only lead to frustration and disillusionment once reality "hits the fan", so to speak. This is not to infer that our educational system and the competencies required by our work force do not require serious attention. However, the failure to properly evaluate and address this problem can easily lead to misdirected effort. As a former teacher, we are painfully aware of the problems in education, many of which do not stem from a lack of money but from a lack of clear objectives and a commitment to standards.

Brief Analysis Of Economic Conditions

THE NATIONAL AND STATE ECONOMIES IN THE FIRST QUARTER

By B. Boyle

NATION

Substantial increases in nearly all of the economic statistics in March and April indicated that the recovery that began in January is gathering momentum. Revised data showed that March was considerably stronger than was suggested by the preliminary figures. Since December the economy has shown improving health in every month except February.

Probably the most significant developments in March and April were the strong and widespread advances in industrial production and retail sales. The 2.1 percent increase in output in April followed an upward revised gain of 1.2 percent in March and was the largest since a 2.2 percent rise in August 1975. Retail sales rose a solid 1.6 percent in April after a sharply upward revised increase of 1.7 percent in March. The substantial gains in sales in March and April came after three consecutive monthly declines. Also encouraging in April was an increase of 258,000 in nonfarm payroll employment. Almost one third of the December to April gain of 650,000 in payroll employment was in the cyclically sensitive durable goods manufacturing industries. Moreover, personal income rose 0.8 percent in April, the steepest rise since July 1982. Even more important was that the income gain was primarily in the wage and salary component.

Present conditions suggest that the recovery will continue and become even stronger. The increases in new orders and the low level of inventories should result in greater production and higher employment. Also, the strength in income is likely to bolster consumer spending. Meanwhile, the index of leading indicators rose for the tenth consecutive month in May, implying that the upturn is gaining strenth.

STATE

Although some of the indicators of business activity were very encouraging in the first quarter, most of the labor force and payroll data suggest that the economy was rather flat in the first quarter. Unemployment was still quite high even with a sharp drop in April and seasonally adjusted nonfarm payroll employment has yet to show much growth after appearing to end its long decline in December.

Even though the April decline of 1.2 percentage points (largely due to less than normal growth in the labor force) in the State's seasonally unadjusted unemployment rate equalled a record, the rate, at 9.0 percent, was the third highest rate since labor force data has been available. Also, seasonally unadjusted total employment which, on average, rises by 1.8 percent between December and April fell 0.9 percent over the past four months. This decline was the largest since a drop of 1.3 percent between December 1974 and April 1975. Since December 1982, seasonally adjusted nonfarm payroll employment has risen by 4,500 or 0.3 percent. After a gain of 6,800 in December, revised data show that payroll employment has been edging downward. Declines since January in construction, public utilities, and government have offset gains in manufacturing, trade, and services.

On the other hand, other indicators have shown considerable improvement in the past year. Private housing permits in the first quarter were more than double the level of the same period in 1982. Also, retail sales have risen by 12 percent since last July. If the housing industry and business activity in general continues to strengthen, we should begin to see faster gains in employment in the months ahead.

Forecasts

FORECASTS OF GNP AND MINNESOTA PAYROLL EMPLOYMENT

By C. Cline

The table below presents forecasted values for the next eight quarters, together with the most recent quarterly estimates, for real Gross National Product and selected Minnesota nonagricultural wage and salary employment levels. These forecasts are produced using the Vector Autoregression model developed for Research by Rao Aiyagari.

The data shown below present forecasts of price adjusted, or real, GNP and total and major industry division nonagricultural wage and salary employment. The period covered is the second quarter of 1983 through the first quarter of 1985.

The model forecasts a 7.7 percent expansion in real GNP for 1983 and 7.6 percent for 1984. We regard these to be optimistic in the light of rates of real growth during previous economic expansions. In the three most recent expansions the annual rates of real growth ranged from 2.6 to 6.0, 3.4 to 5.8 and 2.8 to 5.5 percent. In only one post-war expansion was real growth greater than our forecast. That was in 1950 (8.7 percent) and 1951 (8.3 percent).

Total Minnesota wage and salary employment has suffered falling over-the-year levels since attaining its high of 1803.076 thousand in the Winter Quarter of 1979. Our forecasts show growth in the level of total payroll employment on an over-the-year basis beginning with the fourth quarter of 1983 although the level is beginning to firm up now. Again we believe our forecasts to be optimistic, but even so we do not expect employment to reach its high of 1979 until late in 1984.

Quarter	Real GNP (Billions of 1972 Dollars)	MINNESOTA PAYROLL EMPLOYMENT, BY QUARTER (In Thousands)								
		Total Nonagricultural Wage & Salary	Mining	Contract Construction	Manufacturing	Transportation, Communications, & Public Utilities	Retail and Wholesale Trade	Finance, Insurance, & Real Estate	Services	Government
CURRENT										
1983-I	1486.20	1652.42	7.75	44.44	330.17	92.96	413.32	97.28	377.40	289.90
FORECAST										
1983-II	1507.61	1691.48	10.10	55.11	330.19	92.67	432.18	99.12	390.22	290.91
1983-III	1534.20	1698.09	11.22	65.12	340.13	91.74	432.35	100.23	394.05	266.10
1983-IV	1566.36	1724.14	11.33	62.90	333.61	95.23	436.49	99.91	398.56	287.37
1984-I	1600.24	1695.30	11.04	48.37	331.49	93.52	427.13	100.21	396.20	288.98
1984-II	1634.24	1762.40	12.59	61.25	340.93	95.18	450.13	102.56	412.36	290.15
1984-III	1667.69	1794.57	12.85	73.63	360.76	96.08	453.49	104.28	418.07	267.89
1984-IV	1698.41	1837.02	12.22	71.54	360.70	100.31	462.69	104.34	425.89	288.65
1985-I	1727.11	1811.20	11.45	54.92	361.71	98.62	455.51	104.83	424.68	291.37

Notes

1. The concept of employment forecasted is that of Nonagricultural Wage and Salary employment. The count represents the number of jobs held since the data is generated from a survey of employer payroll records. Groups included in labor force employment, but excluded here are the self employed, domestics, unpaid family workers, employees of nonprofit institutions, and those government workers not covered by unemployment insurance.
2. Employment forecasts are seasonally unadjusted values. Real GNP is seasonally adjusted.
3. Forecasts of major industry employment do not sum to the forecast of total wage and salary employment. This is due to random error in the forecasted values.
4. There is great diversity in the accuracy of our forecasts among the major industry division. More information on their accuracy can be obtained from the author on request.

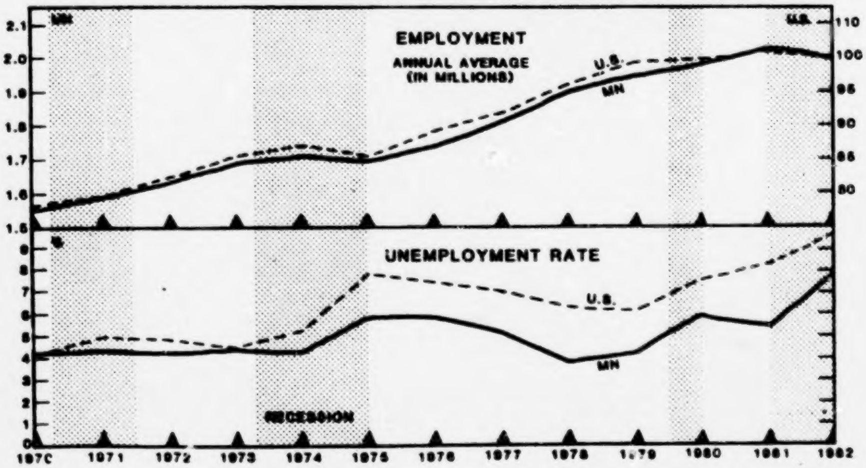
Labor Force Statistics

Labor Force Estimates	MINNESOTA (Numbers in '000's)			UNITED STATES (Numbers in '000,000's)		
	April 1983	Change From Last Mo.	Change From Year Ago	April 1983	Change From Last Mo.	Change From Year Ago
Civilian Labor Force	2117.2	26.7	-51.3	109.9	0.0	1.1
Employed	1926.0	48.5	-73.7	98.8	0.8	0.0
Unemployed	191.2	-21.8	22.4	11.1	-0.8	1.1
Unemployment Rate						
Actual	9.0	-1.2	1.2	10.0	-0.8	0.8
Seasonally Adjusted	n.a	n.a	n.a	10.2	-0.1	0.8

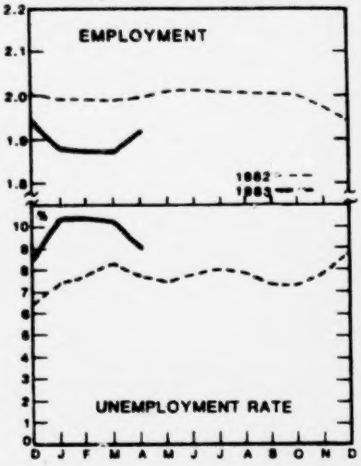
Historical Labor Force Series

Year	Minnesota (Annual Average in '000's)				United States (Annual Average in '000,000's)			
	Labor Force	Employment	Unemployment Number	Unemployment Rate	Labor Force	Employment	Unemployment Number	Unemployment Rate
1970	1625.0	1557.0	68.0	4.2	82.8	78.7	4.1	4.9
1971	1665.0	1593.0	73.0	4.4	84.4	79.4	5.0	5.9
1972	1709.0	1635.0	73.0	4.3	87.0	82.2	4.9	5.6
1973	1774.0	1694.0	80.0	4.5	89.4	85.1	4.4	4.9
1974	1779.0	1701.0	77.0	4.3	91.9	86.8	5.2	5.6
1975	1804.0	1697.0	107.0	5.9	93.8	85.8	7.9	8.5
1976	1849.0	1739.0	109.0	5.9	96.2	88.8	7.4	7.7
1977	1907.0	1809.0	97.0	5.1	99.0	92.0	7.0	7.1
1978	1979.0	1903.0	75.0	3.8	102.3	96.0	6.2	6.1
1979	2038.0	1953.0	85.0	4.2	105.0	98.8	6.1	5.8
1980	2109.0	1984.0	125.0	5.9	106.9	99.3	7.6	7.1
1981	2153.0	2034.0	119.0	5.5	108.7	100.4	8.3	7.6
1982	2166.0	1997.0	169.0	7.8	110.2	99.5	10.7	9.7

MN and the U.S., Employment & Unemployment Rate



MN, 1982 and 1983



Labor Market Conditions

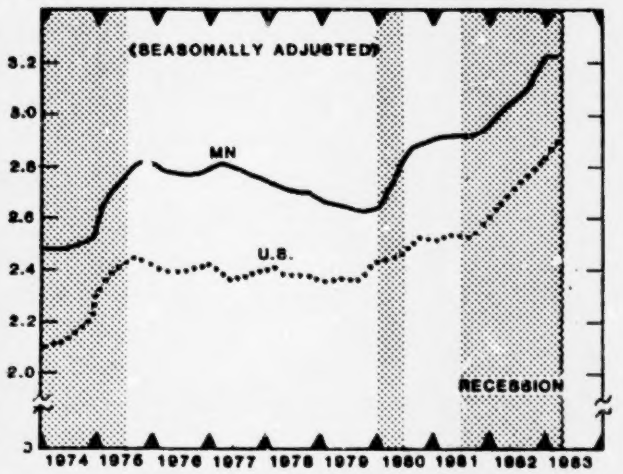
The table and graphs in this section describe the behavior of the market for labor services in terms of its quantity, price, and supply. The quantity of labor services, which is the number of employed persons, is classified by industry. The price of labor services is roughly indicated by the industry wage. Unemployment estimates provide a qualified measure of excess labor supply. The degree to which persons participate in the labor market and the effectiveness of the market in utilizing labor services are indicated by Labor Force Estimates and by Other Rates of Labor Utilization.

Labor Force And Establishment Data	MINNESOTA (Numbers in '000's)			UNITED STATES (Numbers in '000's)		
	I Qtr. 1983	Percent Change From		I Qtr. 1983	Percent Change From	
		Last Qtr	Year Ago		Last Qtr	Year Ago
LABOR FORCE ESTIMATES						
Total Labor Force	2096.1	-2.3	-0.8	109767	-0.8	1.3
Employment	1880.4	-4.8	-3.5	97507	-1.9	-0.6
Nonagriculatural*	n.a	n.a	n.a	94588	-1.5	-0.6
Agriculatural*	n.a	n.a	n.a	2919	-12.3	0.7
Unemployment	215.7	25.8	30.6	12260	8.0	19.2
By Reason - New Reentrants-%*	n.a	n.a	n.a	32.5	2.5	-5.8
By Reason - Quit-%*	n.a	n.a	n.a	7.6	11.8	-18.3
By Reason - Lost-%*	n.a	n.a	n.a	59.9	-2.6	6.6
Unemployment Rates						
Actual	10.3	28.8	32.1	11.2	8.7	17.9
Seasonally Adjusted	n.a	n.a	n.a	10.3	-3.7	17.0
OTHER RATES OF LABOR UTILIZATION						
Participation Rt (Labor Force/Population 16+)*	n.a	n.a	n.a	63.7	-0.6	0.0
Full Employment Deficit - Percent of Workers1/	6.3	4.0	3.8	7.2	6.3	5.5
Manpower Utilization Rate2/*	81.2	0.9	-1.0	79.1	0.6	-1.6
NONAGRICULTURAL WAGE AND SALARIED POSITIONS						
Employment*	1686.2	-0.1	-2.8	38836	0.1	-1.7
Mining	8.2	22.4	-37.9	1009	-3.6	-15.9
Construction	56.0	-2.3	-10.4	3828	-0.4	-3.3
Manufacturing	336.1	-0.1	-5.7	18232	0.1	-6.2
Durables	197.9	-0.3	-7.3	10606	0.3	-8.3
Nondurables	138.2	0.3	-3.2	7626	-0.1	-3.1
Trans., Comm., & Public Utilities	93.5	-0.6	-3.3	4940	-1.1	-3.4
Trade	425.6	-0.1	-1.8	20466	0.4	-0.9
Fin., Ins., & Real Estate	98.1	0.1	-0.3	5399	0.6	1.3
Services	383.7	0.6	1.0	19232	0.6	1.9
Government	285.0	-0.7	-2.9	15730	-0.2	-0.8
Average Weekly Hours*						
Mining	35.5	-3.7	-4.6	41.6	-0.7	-4.1
Construction	36.8	5.1	0.3	36.2	-1.4	2.3
Manufacturing	39.5	0.8	0.8	39.5	1.5	1.1
Durables	40.2	0.8	1.5	39.9	2.0	1.8
Nondurables	38.7	1.3	0.0	38.9	1.0	2.1
Trans., Comm., & Public Utilities	38.2	1.1	-2.3	38.4	-1.5	-1.3
Trade	29.8	0.3	0.7	31.8	-0.3	-0.3
Fin., Ins., & Real Estate	n.a	n.a	n.a	36.1	-0.3	-0.3
Services	n.a	n.a	n.a	32.7	0.3	0.3
Average Hourly Wage						
Mining	13.33	1.4	0.0	11.25	1.8	5.8
Construction	14.91	3.5	6.5	11.90	1.0	4.3
Manufacturing	9.48	1.9	5.9	8.73	1.3	4.2
Durables	9.46	1.3	5.8	9.29	1.2	4.3
Nondurables	9.51	3.0	6.1	7.99	1.4	5.3
Trans., Comm., & Public Utilities	10.58	0.3	5.7	10.67	1.0	5.6
Trade	7.26	3.4	7.7	6.44	2.2	4.5
Fin., Ins., & Real Estate	n.a	n.a	n.a	7.23	3.3	9.7
Services	n.a	n.a	n.a	7.18	1.4	5.9
Estimates of Labor Turnover (Mfg. Only)	Estimates of Labor Turnover have been discontinued as of January 1, 1982.					

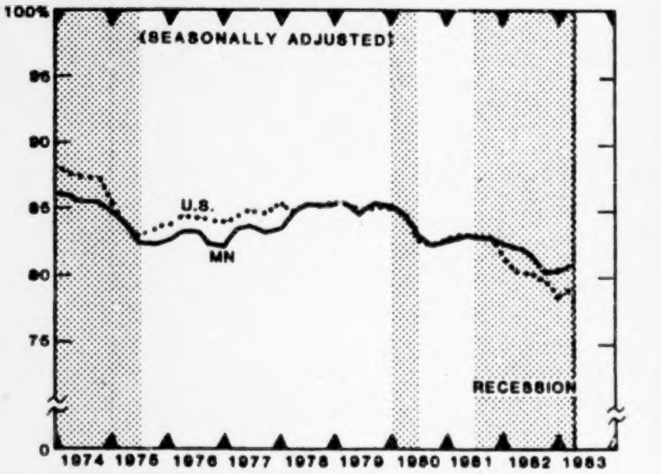
a/ Values are numerical values, not percent changes.

Labor Market Conditions

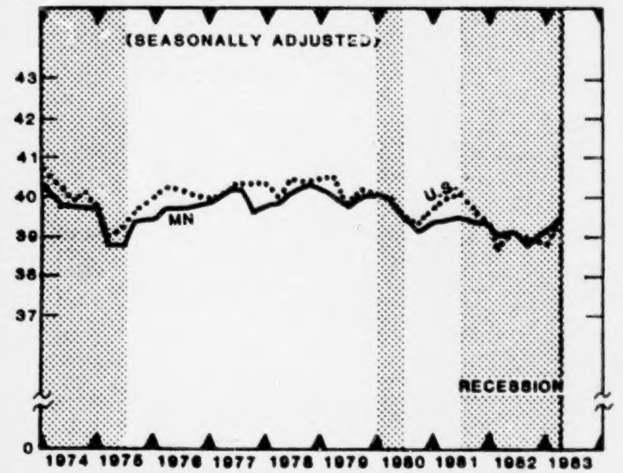
Ratio of Service to Goods Producing Jobs



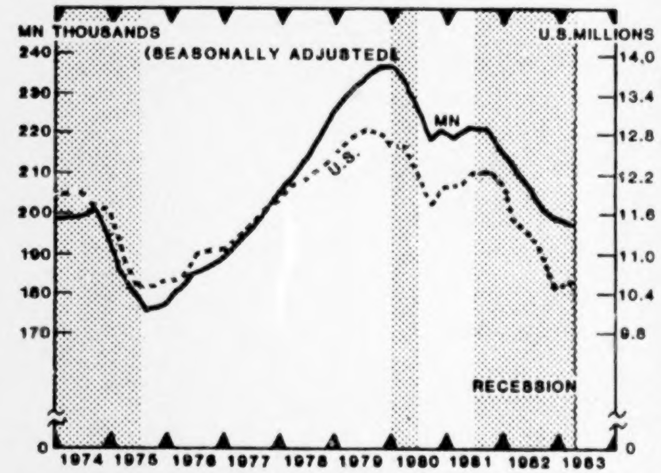
Manpower Utilization Rate



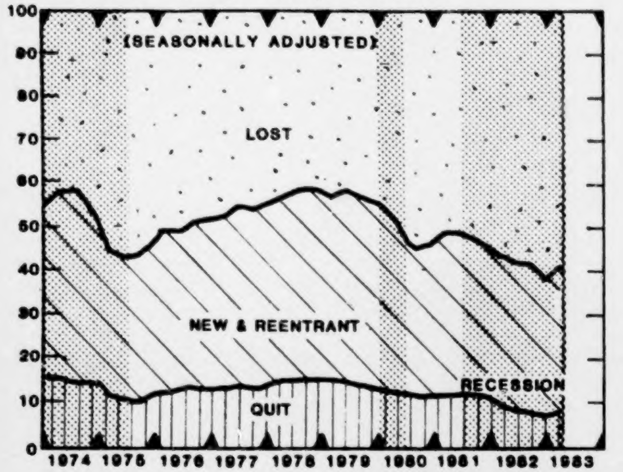
Average Weekly Hours, Manufacturing



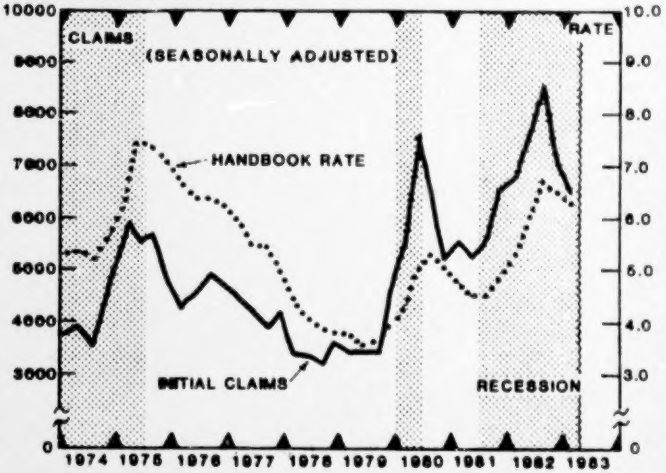
Manufacturing Employment, Durable Goods



U.S. Unemployment: Percent Distribution by Reason



MN Weekly Initial Claims & Handbook Unemployment Rate [1]



Labor Market Conditions

The Table below provides data on persons who file claims for unemployment compensation in Minnesota. Only those claiming benefits from the regular State program are represented, since data on the characteristics of Federal employees and veterans are not available, and data on those receiving benefits from extended programs is reported only when those programs are in effect. If those receiving extended benefits were included they would distort the numerical comparisons over time, but would not substantially change the percentage distributions other than to increase the proportion of long-term unemployed.

Persons Claiming Benefits	First Quarter 1983			April 1983			Percent Long Term
	Number	Percent Change From		Number	Percent Change From		
		Last Qtr.	Year Ago		Month Ago	Year Ago	
By Age & Sex							
Male	62244	38.8	4.6	46227	-22.2	-15.0	34.7
Under 45	48712	39.3	1.9	36026	-22.8	-17.0	34.4
Under 25	13661	47.1	-19.5	9221	-28.3	-36.2	36.9
25-34	23725	37.6	10.8	18199	-20.9	-9.1	33.8
35-44	11326	34.4	20.5	8606	-20.2	-3.4	32.8
45 and Over	13532	36.9	15.6	10201	-20.2	-7.0	35.9
45-54	7716	36.6	13.4	5676	-21.5	-10.2	34.6
55 and Over	5816	37.4	18.8	4525	-18.5	-2.6	37.4
Female	19782	9.5	10.1	15543	-16.3	-13.8	32.0
Under 45	14604	6.7	7.4	11432	-16.3	-16.6	31.6
Under 25	4352	13.5	-3.2	3064	-23.6	-30.8	32.2
25-34	6323	4.6	11.7	5119	-13.9	-10.2	31.5
35-44	3929	3.3	14.3	3249	-12.5	-9.2	31.4
45 and Over	5178	17.9	18.2	4111	-16.1	-5.1	33.0
45-54	2866	14.1	14.4	2287	-16.2	-7.9	31.4
55 and Over	2312	23.0	23.4	1824	-15.9	-1.2	35.0
By Industry	82026	30.4	5.9	61770	-20.8	-14.7	34.0
Ag., For., Fish.	2208	107.9	12.6	1253	-38.6	-1.4	52.6
Mining	4451	-35.3	16.8	2132	-39.8	-51.2	32.9
Construction	21947	123.3	-5.2	16603	-23.8	-12.8	37.2
Manufacturing	22812	12.9	5.8	16878	-19.0	-23.7	33.6
Pub. Utilities	3509	66.4	6.5	3065	-12.1	-10.4	27.8
Wholesale Trade	5357	31.0	21.3	4300	-16.0	-1.4	37.4
Retail Trade	8634	42.3	17.1	7153	-18.4	0.3	30.1
Fin., Ins., Real Est.	1474	14.5	17.5	1244	-12.3	-9.6	38.2
Services	9375	-1.9	13.3	7278	-17.6	-6.4	30.6
Public Admin.	1466	24.2	-17.1	912	-31.1	-25.0	34.7
Inf. Not Available	793	21.6	36.7	952	13.7	208.1	9.7
By Occupation	82026	30.4	5.9	61770	-20.8	-14.7	34.0
Prof., Tech., Mgr.	7451	-6.8	30.6	6154	-13.3	4.9	33.3
Clerical	6581	4.1	15.2	5495	-12.5	-5.9	31.9
Sales	2570	29.3	18.9	2186	-16.3	1.1	30.9
Services	4983	18.3	19.7	3799	-20.2	-3.2	33.0
Farm., For., Fish.	1796	89.9	6.5	993	-40.5	-8.8	49.9
Processing	3633	58.7	-3.4	2685	-28.2	-36.6	28.4
Machine Trade	5445	6.2	16.4	4077	-19.0	-15.8	31.9
Benchwork	7250	-0.1	-1.1	4942	-23.0	-32.4	36.6
Structural Work	25372	96.6	-5.1	18697	-24.0	-15.2	36.4
Misc.	16686	21.9	8.7	12033	-22.5	-19.1	32.2
Inf. Not Available	259	34.2	38.5	709	165.5	254.5	34.5
By Duration	82026	30.4	5.9	61770	-20.8	-14.7	
0-14 Weeks	64907	43.7	1.5	40765	-30.0	-16.2	
15+ Weeks (Long-Term)	17119	-3.6	26.8	21005	6.1	-11.6	

Labor Market Conditions

Minnesota Nonagricultural Wage & Salary Employment, Hours, and Earnings

INDUSTRY	EMPLOYMENT[1/] (thousands)			PER CENT CHANGE FROM		PRODUCTION WORKERS' HOURS & EARNINGS					
						Average Weekly Earnings		Average Hourly Earnings		Average Weekly Hours	
	April 1983	March 1983	April 1982	March 1982	April 1982	April 1983	March 1983	April 1983	March 1983	April 1983	March 1983
TOTAL NONAGRICULTURAL	1675.3	1656.6	1711.3	1.1	-2.1						
MANUFACTURING	331.7	331.2	345.9	0.2	-4.1	366.31	375.25	9.49	9.50	38.6	39.5
Durable Goods	197.4	196.9	208.6	0.3	-5.4	368.16	382.59	9.44	9.47	39.0	40.4
Furniture, Lumber and Wood	13.4	13.3	12.1	0.9	11.2	382.39	398.19	10.17	10.21	37.6	39.0
Stone, Clay and Glass	7.7	7.3	7.5	6.2	3.0	363.44	359.28	9.44	9.43	38.5	38.1
Primary Metals	4.7	4.6	5.8	2.1	-17.7	336.49	346.58	8.65	8.73	38.9	39.7
Fabricated Metals	32.3	32.2	34.0	0.2	-5.0	412.09	423.91	10.38	10.39	39.7	40.8
Nonelectrical Machinery	75.8	76.4	84.5	-0.8	-10.4	374.99	388.17	9.74	9.68	38.5	40.1
Electrical Machinery	26.2	25.8	25.9	1.3	0.9	325.20	345.20	8.36	8.44	38.9	40.9
Transportation Equipment	5.9	5.9	5.8	0.4	0.7	369.63	414.12	9.78	10.20	37.8	40.6
Other Durable Goods 2/	31.4	31.4	33.0	0.1	-4.8	352.97	357.66	8.63	8.66	40.9	41.3
Nondurable Goods	134.3	134.3	137.3	0	-2.2	363.28	365.38	9.56	9.54	38.0	38.3
Food and Kindred	42.5	42.8	43.1	-0.7	-1.5	337.50	336.75	9.00	8.98	37.5	37.5
Textile and Apparel	4.5	4.4	5.5	2.4	-17.0	219.36	225.54	6.34	6.30	34.6	35.8
Paper and Allied	31.8	31.7	32.7	0.4	-2.6	446.40	446.83	10.43	10.44	42.8	42.8
Printing and Publishing	35.3	35.3	35.4	-0.1	-0.3	351.92	363.26	10.29	10.32	34.2	35.2
Chemical and Petroleum	9.1	9.1	9.1	-0.1	0.1	420.89	398.73	10.47	10.12	40.2	39.4
Rubber and Leather	11.1	11.1	11.6	0.3	-4.1	295.09	305.31	7.89	7.93	37.4	38.5
NONMANUFACTURING	1343.6	1325.4	1365.4	1.4	-1.6						
Mining and Quarrying	8.4	7.8	11.7	8.1	-28.5	403.75	423.50	11.91	12.10	33.9	35.0
Metal Mining	6.9	6.5	10.3	5.6	-33.6	420.00	437.67	12.50	12.76	33.6	34.3
Construction	48.8	44.0	53.2	10.9	-8.2	481.13	533.57	14.76	15.03	32.6	35.5
Building	13.5	12.1	15.5	11.3	-12.8	439.21	509.40	13.64	13.88	32.2	36.7
Highway and Heavy	6.2	4.3	6.2	45.2	-0.2	391.87	434.19	12.17	12.37	32.2	35.1
Special Trades	29.1	27.6	31.4	5.5	-7.4	522.45	561.40	15.88	16.04	32.9	35.0
Transportation	60.1	59.6	60.7	0.8	-1.0						
Railroads	12.9	13.0	13.7	-0.8	-5.8	507.65	507.65	11.06	11.06	45.9	45.9
Trucking and Warehousing	22.7	22.2	22.8	2.2	-0.5	424.70	428.15	11.83	11.86	35.9	36.1
Public Utilities	32.4	32.7	34.0	-0.9	-4.7	477.06	471.47	12.17	12.12	39.2	38.9
Communications	18.4	18.8	19.8	-1.6	-7.0	431.62	432.00	11.24	11.25	38.4	38.4
Elec., Gas and Sanitary	14.0	14.0	14.2	0.2	-1.4	527.32	516.27	13.15	13.07	40.1	39.5
Trade	421.5	414.2	428.4	1.8	-1.6	211.56	213.44	7.27	7.26	29.1	29.4
Retail	312.9	305.9	314.7	2.3	-0.6	167.94	168.84	6.29	6.30	26.7	26.8
General Merchandise	42.7	42.3	44.2	0.9	-3.5	159.13	161.70	5.96	5.88	26.7	27.5
Food Stores	44.5	43.7	44.2	1.7	0.7	205.34	207.94	7.44	7.48	27.6	27.8
Automotive	33.3	32.8	33.8	1.6	-1.5	254.88	249.40	7.20	7.25	35.4	34.4
Eating and Drinking	105.9	101.5	105.4	4.4	0.5	98.07	98.33	4.67	4.66	21.0	21.1
Wholesale	108.6	108.3	113.7	0.2	-4.5	364.56	364.42	9.67	9.59	37.7	38.0
F.I.R.E.	98.1	97.4	98.2	0.7	-0.1						
Finance	46.7	46.4	45.9	0.5	1.7						
Insurance	35.2	35.3	35.8	-0.4	-1.6						
Real Estate	16.2	15.7	16.5	3.5	-1.5						
Service Industries	384.3	379.1	380.1	1.4	1.1						
Hotel and Lodging	19.7	19.1	19.4	3.1	1.5						
Business Services	56.9	56.0	55.7	1.7	2.2						
Health Services	134.4	134.0	131.4	0.3	2.2						
Private Education	24.4	24.4	24.2	-0.2	0.8						
Soc. Serv., Museums etc.	81.6	81.0	82.2	0.8	-0.7						
Government	289.9	290.5	299.0	-0.2	-3.1						
Federal	29.7	29.3	30.1	-0.3	-1.0						
State	73.6	73.4	73.1	0.2	0.6						
Local	186.6	187.3	195.9	-0.4	-4.7						

1/ Totals may not add because of rounding.
2/ Includes Scientific Instruments and Miscellaneous Industries.

Labor Market Conditions

Labor Force Data: State, SMSAs, and Counties

Area or County	April, 1983 Prelim.		
	Labor 1/ Force	Unemp.	Un. Rate
State of Minnesota	2117242	191230	9.0
Metropolitan Areas			
Duluth/Superior (Duluth City Only)	36747	5817	15.8
Fargo/Moorhead (Clay County, MN Only)	27282	2182	8.0
Minneapolis/St. Paul SMSA 2/	1139364	82728	7.3
Rochester SMSA (Olmsted Co.)	57652	3382	5.9
St. Cloud SMSA 3/	76826	8168	10.6
Counties			
Aitkin	5390	1182	21.9
Anoka	109327	9298	8.5
Becker	12196	1801	14.8
Beltrami	15869	1632	10.3
Benton	11809	1217	10.3
Big Stone	3921	332	8.5
Blue Earth	28899	2065	7.1
Brown	15311	1302	8.5
Carlton	11808	1668	14.1
Carver	20496	1589	7.8
Cass	10092	1417	14.0
Chippewa	7175	714	10.0
Chisago	14602	1477	10.1
Clay	27282	2182	8.0
Clearwater	4068	896	22.0
Cook	2156	395	18.3
Cottonwood	7464	595	8.0
Crow Wing	16589	2233	13.5
Dakota	106561	7495	7.0
Dodge	8164	841	10.3
Douglas	13216	1206	9.1
Faribault	11052	1113	10.1
Fillmore	12255	1137	9.3
Freeborn	17721	1567	8.8
Goodhue	19187	1564	8.2
Grant	3532	289	8.2
Hennepin	516183	35727	6.9
Houston	9711	774	8.0
Hubbard	5347	847	15.8
Isanti	10026	1186	11.8
Itasca	18317	3499	19.1
Jackson	7702	397	5.2
Kanabec	5458	777	14.2
Kandiyohi	17820	1629	9.1
Kittson	3285	304	9.3
Koochiching	7438	1098	14.8
Lac qui Parle	5807	349	6.0
Lake	4524	995	22.0
Lake of the Woods	1812	203	11.2
Le Sueur	11836	1472	12.4
Lincoln	3839	320	8.3
Lyon	14604	1235	8.5
McLeod	16510	1597	9.7
Mahnomen	2842	353	12.4
Marshall	6406	1014	15.8
Martin	13750	1113	8.1
Meeker	10922	1448	13.3
Mille Lacs	8709	1080	12.4
Morrison	12720	1617	12.7
Mower	17834	1496	8.4
Murray	6110	604	9.9
Nicollet	14801	988	6.7
Nobles	11750	737	6.3
Norman	4583	376	8.2
Olmsted	57652	3382	5.9
Otter Tail	23967	2626	11.0
Pennington	6317	714	11.3
Pine	9653	1352	14.0
Pipestone	5529	310	5.6
Polk	15936	1958	12.3
Pope	5580	495	8.9
Ramsey	251880	17226	6.8
Red Lake	2289	406	17.7
Redwood	10855	773	7.1
Renville	11408	1165	10.2
Rice	23300	2219	9.5
Rock	5584	244	4.4
Roseau	5479	695	12.7
St. Louis (Inc. Duluth)	93549	19490	20.8
Scott	24594	2249	9.1
Sherburne	14247	1669	11.7
Sibley	8458	811	9.6
Stearns	50770	5282	10.4
Steele	16276	1403	8.6
Stevens	5775	394	6.8
Swift	6413	614	9.6
Todd	11567	1069	9.2
Traverse	2867	238	8.3
Wabasha	9396	928	9.9
Wadena	5427	659	12.1
Waseca	8894	788	8.9
Washington	62155	4193	6.7
Watonwan	6705	629	9.4
Wilkin	4413	421	9.5
Winona	22111	2308	10.4
Wright	33566	3474	10.3
Yellow Medicine	7842	604	7.7

Technical Notes:

1/ Labor force data is computed according to BLS methodology. The method includes an adjustment to assure that the sum of the substate areas equals the separately estimated State total. This adjustment is Applied to all county and SMSA areas. County and area unemployment was multiplied by an adjustment factor of 1.50 ; employment was multiplied by 1.00. For a more detailed explanation see the Review of Labor and Economic Conditions, Vol. 4, No. 4, (February 1978 issue), p. 29.

2/ Anoka, Carver, Chisago, Dakota, Hennepin, Ramsey, Scott, Washington, and Wright Counties.

3/ Benton, Sherburne, and Stearns Counties.

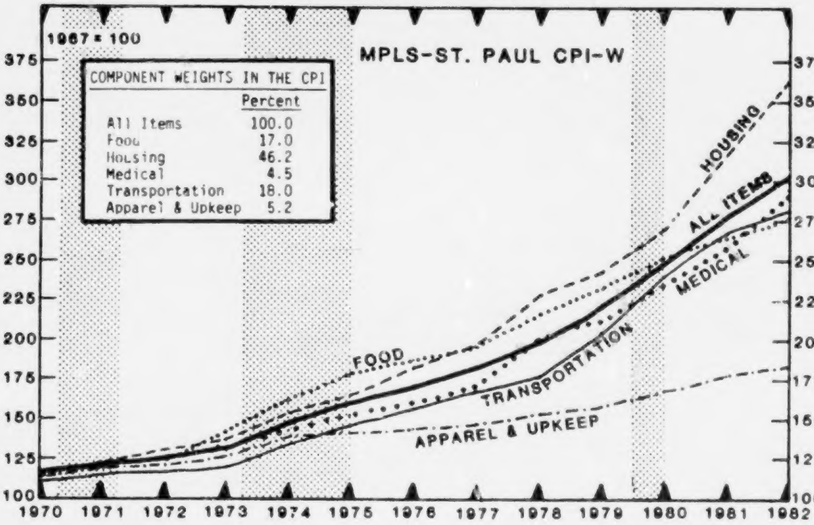
Income & Purchasing Power

This section describes how Minnesotans fare with respect to their ability to acquire goods and services needed to meet their needs and wants and how they compare with others in the United States in this respect. Real Per Capita Personal Income measures money income received by all individuals from wages and salaries, dividends, rent, professional and farm income, personal interest payments, and transfer payments, less personal contributions for social security, all adjusted for the price level as indicated by the CPI and for population. The Consumer Price Index (CPI) measures changes in the price of a representative combination of goods and services consumed by urban wage and salary workers relative to 1967. The inverse of the CPI (1/CPI) indicates the value of the dollar; when the CPI increases the value of the dollar falls. The change in the CPI over any period of time divided by the value at the beginning of the period gives the percentage change, or the rate of inflation.

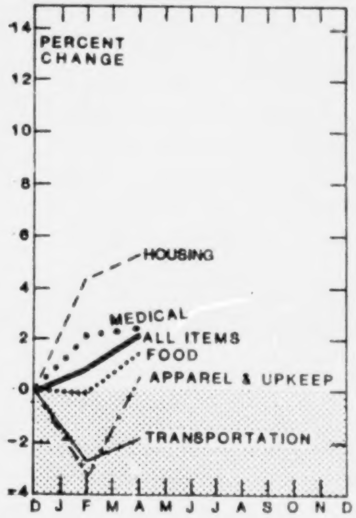
Income And Purchasing Power	MINNESOTA			UNITED STATES		
	I Qtr. 1983	Percent Change from		I Qtr. 1983	Percent Change from	
		Last Qtr.	Year Ago		Last Qtr.	Year Ago
INCOME STATISTICS						
Personal Income 1/*						
Total Personal Income (in Billions)	48.4	1.7	4.8	2648.3	0.9	5.5
Due to Labor 2/	n.a	n.a	n.a	1758.4	107.0	49.1
Due to Property 3/	n.a	n.a	n.a	611.1	19.8	25.6
Due to Transfer Payments 4/	n.a	n.a	n.a	395.3	-10.7	29.5
Total Disposable Personal Income	n.a	n.a	n.a	2247.0	1.0	6.1
As Percent of Total Pers. Inc.	n.a	n.a	n.a	84.8	0.0	0.6
Per Capita Personal Income 5/						
Current dollar Value	11658	1.7	4.2	11345	0.7	4.5
Real (1967) Dollar Value	3772	0.9	2.3	3879	0.9	0.9
Real Median Family Money Income 5/*						
All Families	8742	0.8	2.1	8670	0.8	0.7
Four Person Families	9082	0.7	1.9	10102	0.9	0.8
Earnings of Production Workers in Mfg. 6/						
Average Weekly Earnings	374.78	2.3	6.9	342.35	1.0	6.3
Real Average Weekly Earnings 7/	121.25	1.6	5.0	117.04	1.1	2.6
Income Related Criteria 8/						
Standard Budgets	The U.S. Department of Labor, Bureau of Labor Statistics has discontinued the preparation of Standard Budgets, therefore, this data is no longer available.					
Low						
Moderate						
High						
Poverty Level Income						
Urban Family of Four	9300		10.1	9300		10.1
Nonurban Family of Four	7910		10.0	7910		10.0
MEASURES OF PRICE CHANGE AND INFLATION						
Consumer Price Level (CPI) 9/	309.1	0.7	1.8	292.5	-0.1	3.5
Food	291.7	0.1	3.9	289.5	0.9	2.5
Housing	368.1	2.0	0.1	317.9	-0.4	3.8
Transportation	276.0	-2.1	0.7	291.3	-1.9	0.7
Medical	308.8	2.5	11.0	348.1	2.6	10.6
Purchasing Power of the Dollar (1/CPI)	.32	-0.6	-1.5	.34	0.1	-3.4
Wholesale Price Index	n.a	n.a	n.a	300.6	0.1	0.3
Industrial Commodities	n.a	n.a	n.a	313.9	-0.3	0.8

Income & Purchasing Power

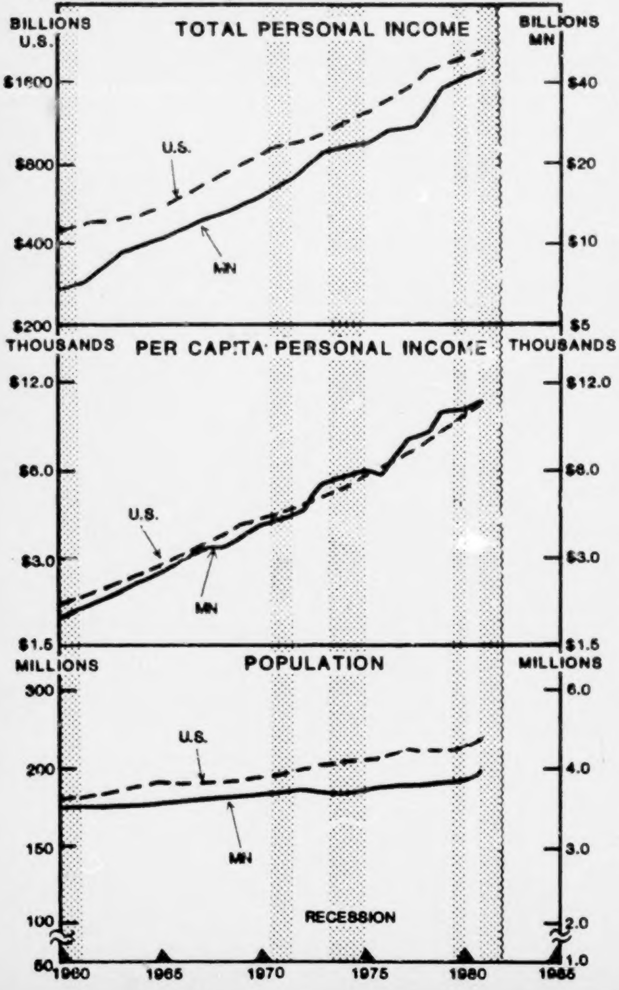
Consumer Price Index- Major Components



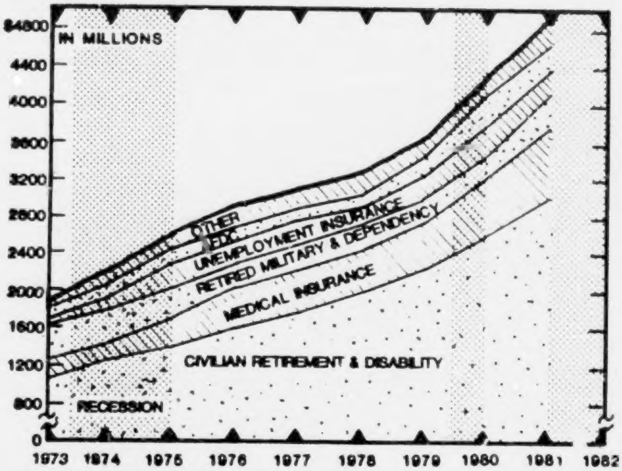
% △ From Dec. 1982



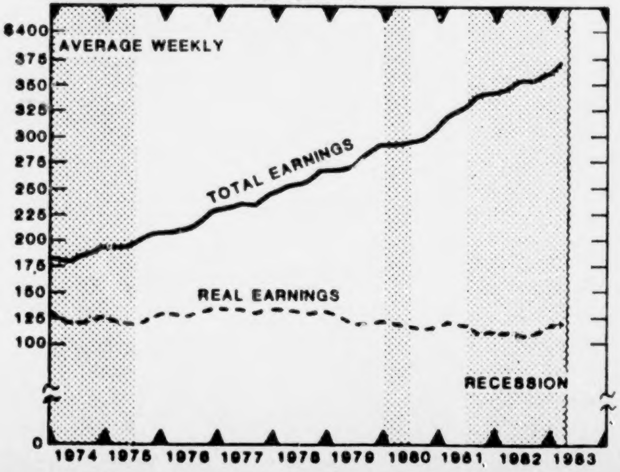
U.S. & MN Personal Income And Population



Government Transfer Payments To Individuals In Minnesota



Minnesota Earnings, Mfg.



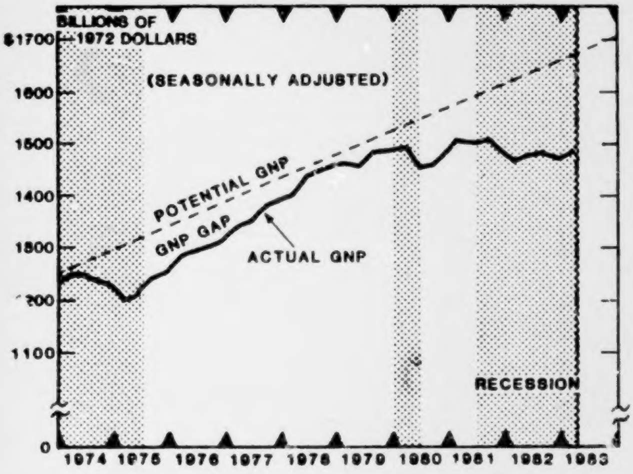
Output, Expenditures, Money, & Credit Conditions

The overall level and composition of National Output shape labor market conditions, and nominal and real earnings. (Nominal values are not adjusted for inflation; real values are adjusted for inflation.) Personal Consumption Expenditures, especially on Durable Goods, together with data on Retail Sales, are frequently used as indicators of future levels of employment. The number of Building Permits influences the level of employment in construction and related industries. The Federal Budget Deficit is a key indicator of the stimulatory effect of government policy. Whether this effect results in inflation, improved employment conditions, or some combination of the two, depends in part, upon the degree to which present productive capacity is utilized. Present and anticipated Money and Credit Conditions determine the ability of consumers, business, and State and Local governments to borrow in order to finance purchases, which, in turn, generate income and employment. Unfortunately, most data of this kind is available only for the Nation. However, in an economy as interdependent as ours, analysis of the directions of change of key national indicators is a useful tool for understanding the course of the State economy.

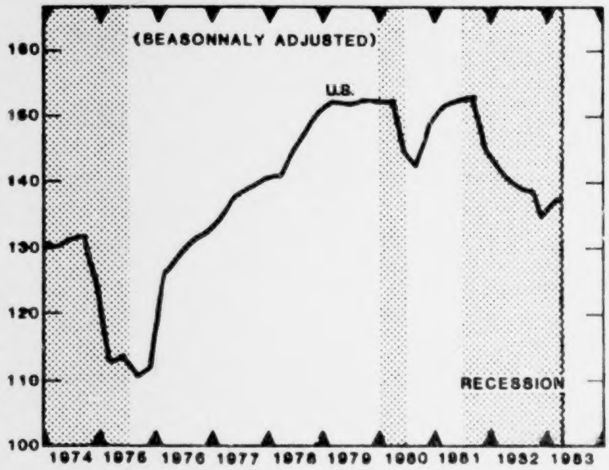
Output, Expenditure, Money, And Credit Conditions	MINNESOTA			UNITED STATES		
	I Qtr. 1983	Percent Change from		I Qtr. 1983	Percent Change from	
		Last Qtr.	Year Ago		Last Qtr.	Year Ago
OUTPUT AND EXPENDITURE						
Retail Sales (in millions of dollars)*	1785	2.1	6.8	91669	-0.3	4.8
Private Housing Units Authorized by* Building Permits 1/	28380	43.7	112.6	1477	20.8	81.2
Index of Industrial Production 2/ *	n.a	n.a	n.a	138.0	2.0	-2.7
Gross National Product (in billions of 3/ 1972 dollars)*	n.a	n.a	n.a	1488.5	0.8	1.2
Personal Consumption Expenditures	n.a	n.a	n.a	972.4	0.6	2.5
Durable Goods	n.a	n.a	n.a	144.5	1.2	5.1
As Percent of Pers. Cons.	n.a	n.a	n.a	14.9	0.7	2.8
Nondurable Goods	n.a	n.a	n.a	369.8	0.6	2.1
Services	n.a	n.a	n.a	458.1	0.3	1.9
Gross Private Domestic Investment	n.a	n.a	n.a	199.5	8.7	2.1
As Percent of GNP	n.a	n.a	n.a	13.4	8.1	0.8
Nonresidential, Fixed	n.a	n.a	n.a	162.0	0.7	-5.8
Residential	n.a	n.a	n.a	49.9	16.3	28.3
Net Exports	n.a	n.a	n.a	24.0	-11.8	-35.0
Government Purchases	n.a	n.a	n.a	292.6	-2.3	1.2
Federal	n.a	n.a	n.a	117.5	-5.8	2.7
State and Local	n.a	n.a	n.a	175.1	-0.2	0.1
GNP Gap (Full Empl. Minus Present GNP)*						
1972 Dollars (in billions)	n.a	n.a	n.a	182.6	0.6	20.4
Current Dollars (in billions)	n.a	n.a	n.a	389.6	1.9	26.1
Current Federal Budget Deficit 4/ As Percent of GNP	n.a	n.a	n.a	-5.5	-6.6	-4.0
Inventory to Sales: Durable Goods in Mfg.*	n.a	n.a	n.a	2.21	-10.2	-8.7
New Orders to Shipments: Durable Goods*	n.a	n.a	n.a	1.02	2.3	2.5
Plant Capacity Utilization Rate in Mfg. 5/*	n.a	n.a	n.a	68.8	1.8	-3.9
MONEY AND CREDIT CONDITIONS						
Interest Rates						
Discount Rate	8.50	-8.1	-29.2	8.50	-8.1	-29.2
Prime Rate	n.a	n.a	n.a	10.88	-9.0	-33.1
Rate on Conventional Mortgages	13.20	-1.5	-12.7	13.36	-6.6	-14.6
Federal Funds Rate	n.a	n.a	n.a	8.65	-6.8	-39.2
Consumer Installment Credit Outstanding	n.a	n.a	n.a	342021	0.6	4.6
As Percent of Disposable Personal Income	n.a	n.a	n.a	15.2	-0.4	-1.5

Output, Expenditures, Money, & Credit Conditions

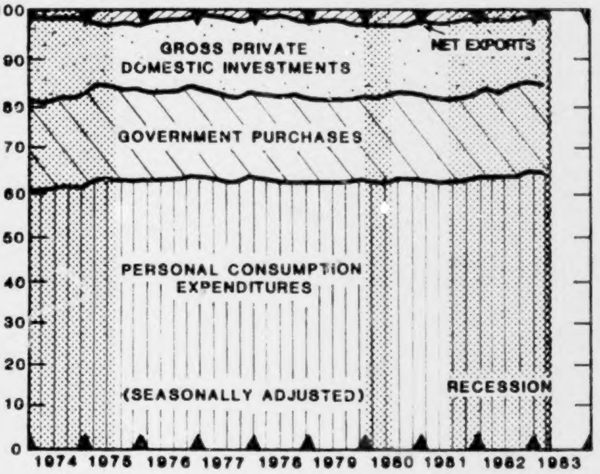
Potential & Seasonally Adjusted GNP



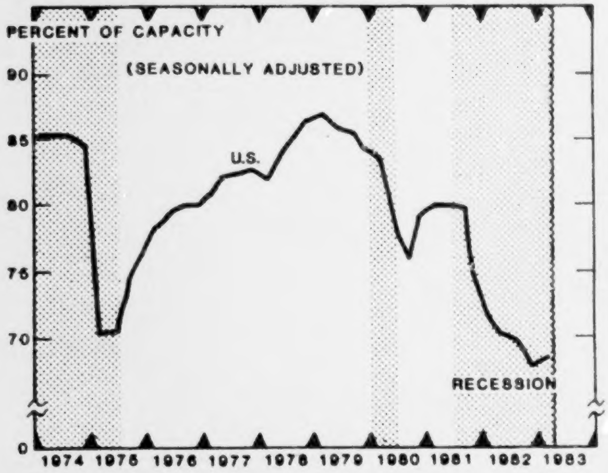
Index of Industrial Production



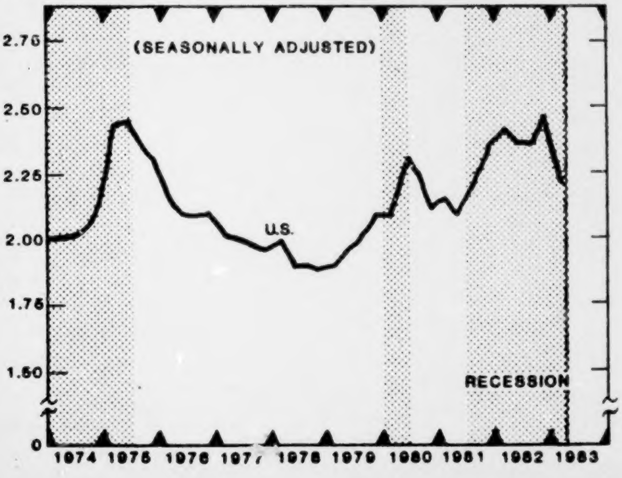
Composition of GNP in Percent



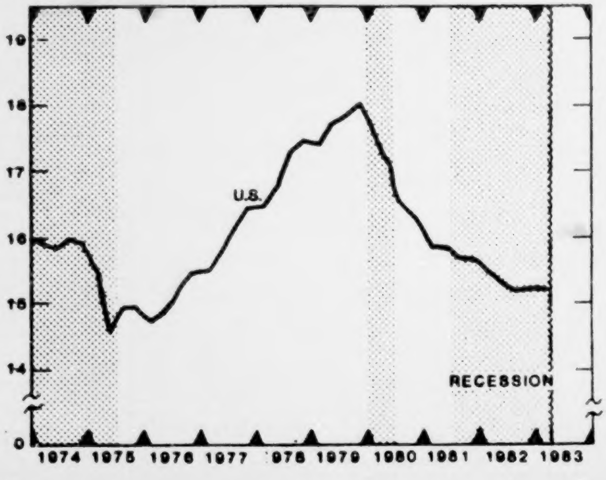
Plant Utilization Rates, Mfg.



Ratio, Inventory to Sales, Durable Mfg.



Ratio, Consumer Installment Debt to Disposable Personal Income, U.S.



Technical Notes

For the reader's convenience the notes which follow are organized in sequence for the pages which appear in the statistical section. Each note corresponds to the footnote or reference notation for the given page.

* Wherever an asterisk appears the data is seasonally adjusted.

Page S-2

1/ Four percent is a generally agreed upon criteria for measuring full employment. It allows for the movement of persons between jobs. Labor Force Unemployment Rate less four percent, based on official estimates.
2/ Estimated worker hours expended in nonfarm payroll employment as a percent of potential worker hours assuming that each member of the nonfarm labor payroll labor force was employed at a standard rate of 40 hours per week.

Page S-3

1/ The handbook unemployment rate is the estimate of unemployment prior to the Current Population Survey (CPS) adjustment.

Page S-7

1/ In billions of dollars at an annual rate.
2/ The contribution to total Personal Income of wages, salaries, and other labor income. Percent change entry in Labor Income Impact is the percent that the change in labor income comprises of the change in total Personal Income. This is not available for Minnesota on a quarterly basis.
3/ The figure for the quarter is the contribution to total Personal Income of proprietor's rental, dividend, and interest income. The percent change entry in Property Income Impact is analogous to the Labor Income Impact described in 2/ above.
4/ The contribution to total Personal Income of transfer payments (unemployment compensation, AFDC, etc.) The percent change entry is analogous to the Labor Income Impact in 2/ above.
5/ In dollars at an annual rate.
6/ In dollars per week.
7/ Real average weekly earnings are the average weekly earnings of production workers in manufacturing divided by the CPI.
8/ Annual data.
9/ Value is CPI-W (Urban Wage earners and clerical workers).

Page S-9

1/ U.S. data annualized in thousands. Source: Bureau of the Census.
2/ Base Year is 1967. Source: Federal Reserve Board.
3/ Totals may not add due to rounding.
4/ Values shown in percent change columns are deficit as percent of GNP for period citied.
5/ Source: Federal Reserve Board.

Available Publications

Nonagricultural Wage & Salary Employment, Hours & Earnings, January 1975 - February 1983, Minnesota (May 1983)

Employment, Hours, and Earnings, January 1970-February 1983, Minneapolis-St. Paul Area (April 1983)

1980 Occupational Employment Statistics in Minnesota (May 1982)

1981 Occupational Employment Statistics in Minnesota (November 1982)

Important Minnesota Occupations by Industry (January 1983)

Minnesota Employment Outlook to 1985 (January 1983)

Minneapolis-St. Paul SMSA Employment Outlook to 1985 (March 1982)

Review of Labor and Economic Conditions and its Monthly Supplement (Recent Issues)

Statistical Supplement to the Annual Report of the Department of Economic Security (September 1981)

Unemployment Compensation Program Statistics: Total Wages, Taxable Wages, Contributions Due, and Benefits Paid, 1950-1978 (April 1980)

Minnesota Employment and Wage data by County (Fourth Quarter 1982) Limited number available for 1975-1981

Average Covered Employment & Wages by Economic Region for the Calendar Year 1982 by two Digits of Industry (also available for 1976-1980)

Occupational Hiring Patterns in Minnesota (October 1981)

Characteristics of Unemployment Insurance Claimants, 1981 (March 1982)

The Economic Outlook for 1983 (February 1983)

Minnesota Labor Market Information Directory (April 1982)

1982 Minnesota Salary Survey by Area (August 1982)

1982 Minnesota Hospitals and Nursing Homes Salary Survey (September 1982)

1982 Minnesota Wage Data by Industry and Size of Firm (September 1982)

Labor Market Information Summary for 1982 for Minnesota (August 1982), Minneapolis-St. Paul SMSA (May 1982), St. Cloud SMSA (May 1982), Duluth SMSA (August 1982), and Rochester SMSA (August 1982)

These publications are available upon request while supply lasts.

Write to: Director, Research and Statistical Services Office
Minnesota Department of Economic Security
390 North Robert Street
St. Paul, Minnesota 55101

5/19/83 S4160-3 A

CURRENT MINNESOTA LABOR MARKET CONDITIONS

April, 1983 Supplement to The Review of Labor and Economic Conditions
Prepared by the Research and Statistical Services Office, MN Dept. of Economic Security, 390 N. Robert St., St. Paul MN 55101, in cooperation with the U.S. Department of Labor, Bureau of Labor Statistics, and Employment and Training Admin.

Nation

Most of the indicators for March suggested that the Nation's economy was continuing to recover and was somewhat stronger than in February. However, according to other data for the first quarter as a whole, the expansion in the first quarter was modest compared to the first year growth of earlier post-war recoveries.

The employment situation appeared to be a little healthier in March. Although the seasonally adjusted unemployment rate fell by only 0.1 of a percentage point to 10.3 percent in March and total employment (seasonally adjusted) remained at 99.1 million, developments in other categories indicated that the economy was expanding. Seasonally adjusted nonfarm payroll employment in March rose 119,000 to 88.9 million after a decline of 185,000 in February. Even more significant was another increase in manufacturing employment. After being hard hit by the recession, factory employment has grown slowly but steadily since December. Also encouraging in March was a 226,000 decline in the number of people working part time who usually work full time.

Other developments in March and the first quarter were indicative of a moderate recovery. Although the first quarter growth in real gross national product was modest by historical standards, it was the largest gain since the first quarter of 1981. While relatively strong advances were posted in industrial production and personal income in March, retail sales rose weakly and housing starts actually declined. However, the drop in housing starts was expected and starts were still far above the year earlier level.

State

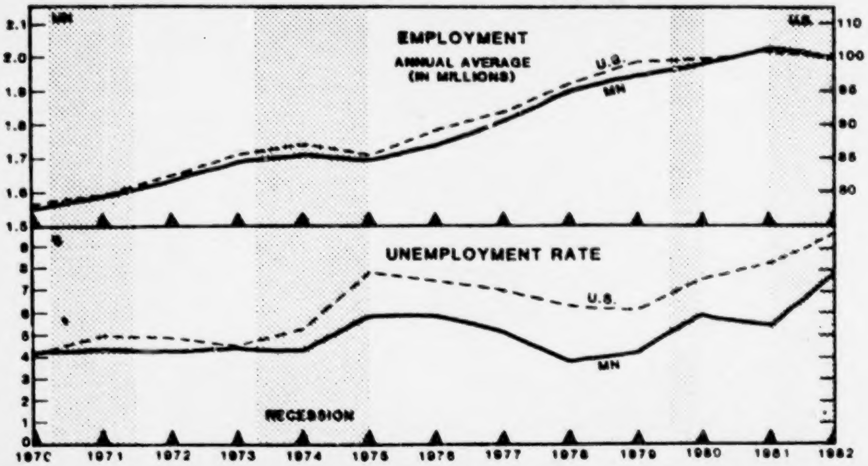
Employment trends in March and in the first quarter suggest that the State's economy has been on a plateau since December. Although the unemployment rate is still very high, both the rate and total employment have shown little change in the first quarter. Moreover, nonfarm wage and salary employment appears to have ended the 15 month slide in December.

Minnesota's seasonally unadjusted unemployment rate fell 0.1 of a point in March after holding at a record high of 10.3 percent in both January and February.1/ The March decline was close to the average of the past 13 years' changes between February and March. Also, the change in unadjusted total employment in March was not significantly different from the average February to March changes of past years. However, updated seasonal adjustment factors and revised employment figures show that seasonally adjusted nonfarm wage and salary employment has been rising slowly since December. Most of the three month gain in wage and salary employment was the result of increases in the nondurable manufacturing, trade and services industries. Meanwhile, seasonally adjusted nonfarm wage and salary employment in March was still 80,000 below its recent high in September 1981.

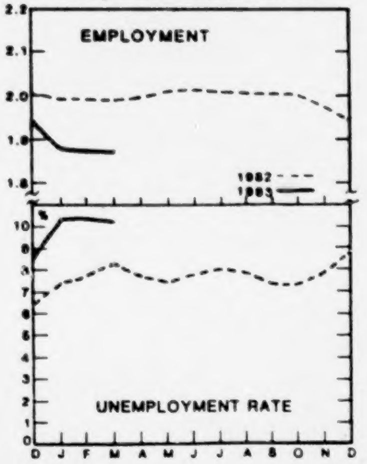
Other data for March hinted that the economy may improve in the coming months. The average workweek in manufacturing (seasonally adjusted) has been edging upward since September and seasonally adjusted average weekly initial claims for unemployment benefits declined in February and March.

Labor Force Estimates	MINNESOTA (Numbers in '000's)			UNITED STATES (Numbers in '000,000's)		
	March 1983	Change From Last Mo.	Change From Year Ago	March 1983	Change From Last Mo.	Change From Year Ago
Civilian Labor Force	2092.0	-4.3	-38.3	109.9	0.2	1.1
Employed	1879.0	-0.4	-77.0	98.0	0.7	-0.5
Unemployed	213.0	-3.9	38.7	11.9	-0.5	1.6
Unemployment Rate						
Actual	10.2	-0.1	2.0	10.8	-0.5	1.3
Seasonally Adjusted	n.a	n.a	n.a	10.3	-0.1	1.3

MN and the U.S., Employment & Unemployment Rate



MN, 1982 and 1983



1/ It should be noted however, that the March estimate may be too high because of an aberration in the current population survey data for Minnesota.

Minnesota Nonagricultural Wage & Salary Employment, Hours, and Earnings

INDUSTRY	EMPLOYMENT 1/ (thousands)			PER CENT CHANGE FROM		PRODUCTION WORKERS' HOURS & EARNINGS					
						Average Weekly Earnings		Average Hourly Earnings		Average Weekly Hours	
	Mar. 1983	Feb. 1983	Mar. 1982	Feb. 1983	Mar. 1982	Mar. 1983	Feb. 1983	Mar. 1983	Feb. 1983	Mar. 1983	Feb. 1983
TOTAL NONAGRICULTURAL	1658.3	1651.9	1698.6	0.4	-2.4						
MANUFACTURING	331.5	329.9	349.6	0.5	-5.2	377.55	374.86	9.51	9.49	39.7	39.5
Durable Goods	196.9	195.8	211.3	0.6	-6.8	382.99	381.10	9.48	9.48	40.4	40.2
Furniture, Lumber and Wood	13.2	12.8	12.2	3.2	7.8	396.78	385.07	10.20	9.95	38.9	38.7
Stone, Clay and Glass	7.4	7.1	7.0	3.3	5.7	367.68	365.16	9.60	9.46	38.3	38.6
Primary Metals	4.8	4.8	6.1	-1.2	-21.2	344.96	341.64	8.80	8.92	39.2	38.3
Fabricated Metals	32.1	32.4	34.2	-0.8	-6.2	423.91	428.86	10.39	10.46	40.8	41.0
Nonelectrical Machinery	76.6	76.5	86.1	0.2	-11.1	389.30	389.14	9.66	9.68	40.3	40.2
Electrical Machinery	25.8	25.4	26.5	1.4	-2.9	345.17	343.48	8.46	8.46	40.8	40.6
Transportation Equipment	5.9	5.8	5.7	2.0	2.4	414.72	396.98	10.24	10.05	40.5	39.5
Other Durable Goods 2/	31.2	31.1	33.4	0.4	-6.5	359.35	356.24	8.68	8.71	41.4	40.9
Nondurable Goods	134.6	134.1	138.3	0.4	-2.7	369.20	366.70	9.54	9.50	38.7	38.6
Food and Kindred	43.0	43.0	44.3	0.1	-2.9	347.91	345.59	8.99	8.93	38.7	38.7
Textile and Apparel	4.5	4.4	5.5	1.7	-19.1	229.24	220.72	6.35	6.20	36.1	35.6
Paper and Allied	31.7	31.6	32.4	0.4	-2.3	447.88	446.95	10.44	10.37	42.9	43.1
Printing and Publishing	35.2	35.1	35.2	0.3	0.2	363.62	353.62	10.33	10.37	35.2	34.1
Chemical and Petroleum	9.1	9.1	9.1	0.4	-0.4	392.34	407.43	10.06	10.11	39.0	40.3
Rubber and Leather	11.1	11.0	11.7	0.9	-5.6	306.87	308.09	7.95	7.92	38.6	38.9
NONMANUFACTURING	1326.8	1322.0	1349.0	0.4	-1.7						
Mining and Quarrying	7.8	7.6	11.0	2.0	-29.0	464.99	467.60	13.21	13.36	35.2	35.0
Metal Mining	6.5	6.4	9.7	0.7	-32.8	485.42	489.59	14.07	14.15	34.5	34.6
Construction	44.3	43.8	49.5	0.9	-10.7	534.07	536.93	14.96	15.04	35.7	35.7
Building	12.3	12.8	14.9	-3.6	-17.4	508.94	506.46	13.83	13.80	36.8	36.7
Highway and Heavy	4.3	3.8	4.9	11.9	-11.8	425.29	463.05	11.98	12.25	35.5	37.8
Special Trades	27.7	27.2	29.8	1.5	-7.1	563.90	563.64	16.02	16.15	35.2	34.9
Transportation	59.8	59.4	60.8	0.6	-1.7						
Railroads	13.3	13.1	13.7	1.1	-3.3	465.89	465.89	10.15	10.15	45.9	45.9
Trucking and Warehousing	22.0	22.1	22.9	-0.1	-3.9	429.16	431.34	11.79	11.85	36.4	36.4
Public Utilities	32.9	32.8	34.2	0.1	-3.8	469.56	473.54	12.04	12.08	39.0	39.2
Communications	18.9	18.9	20.0	0.3	-5.4	428.12	428.12	11.12	11.12	38.5	38.5
Elec., Gas and Sanitary	14.0	14.0	14.2	-0.1	-1.6	516.27	524.29	13.07	13.14	39.5	39.9
Trade	414.9	410.9	420.8	1.0	-1.4	213.74	213.60	7.27	7.29	29.4	29.3
Retail	306.5	302.8	308.6	1.2	-0.7	168.84	166.52	6.30	6.26	26.8	26.6
General Merchandise	42.5	42.6	44.4	-0.1	-4.2	159.89	158.33	5.90	5.93	27.1	26.7
Food Stores	43.7	43.4	43.9	0.8	-0.4	209.28	202.02	7.61	7.51	27.5	26.9
Automotive	32.8	32.6	33.2	0.6	-1.2	243.02	238.56	7.19	7.10	33.8	33.6
Eating and Drinking	101.7	99.5	101.0	2.2	0.8	99.90	99.90	4.69	4.69	21.3	21.3
Wholesale	108.4	108.0	112.2	0.4	-3.3	367.10	373.07	9.61	9.69	38.2	38.5
F.I.R.E.	97.2	97.2	97.6	0	-0.4						
Finance	46.2	46.1	45.8	0.1	0.9						
Insurance	35.4	35.4	35.6	-0.1	-0.8						
Real Estate	15.7	15.7	16.2	-0.1	-3.0						
Service Industries	379.2	377.7	375.3	0.4	1.1						
Hotel and Lodging	19.1	19.0	18.8	0.5	1.6						
Business Services	55.8	55.9	54.5	-0.2	2.3						
Health Services	134.2	133.6	130.4	0.4	2.9						
Private Education	24.4	24.4	24.0	-0.1	1.8						
Soc. Serv., Museums etc.	81.1	80.6	82.0	0.6	-1.0						
Government	290.7	292.4	299.9	-0.6	-3.0						
Federal	29.8	29.8	30.0	0	-0.4						
State	73.9	74.8	73.3	-1.2	0.8						
Local	187.0	187.8	196.7	-0.4	-4.9						

1/ Totals may not add because of rounding.
2/ Includes Scientific Instruments and Miscellaneous Industries.

Labor Force Data: State, SMSAs, and Counties

Area or County	March, 1983 Prelim.		
	Labor[1] Force	Unemp.	Un. Rate
State of Minnesota	2091949	212965	10.2
Metropolitan Areas			
Duluth/Superior (Duluth City Only)	36465	6140	16.8
Fargo/Moorhead (Clay County, MN Only)	27345	2446	8.9
Minneapolis/St. Paul SMSA[2]	1137917	90158	7.9
Rochester SMSA (Olmsted Co.)	56670	3790	6.7
St. Cloud SMSA[3]	75242	9337	12.4
Counties			
Aitkin	5476	1431	26.1
Anoka	109240	10051	9.2
Becker	11859	2069	17.4
Beltrami	15796	1922	12.2
Benton	11613	1445	12.4
Big Stone	3731	385	10.3
Blue Earth	28316	2330	8.2
Brown	15001	1460	9.7
Carlton	11865	1909	16.1
Carver	20572	1824	8.9
Cass	9608	1705	17.7
Chippewa	6801	815	12.0
Chisago	14680	1665	11.3
Clay	27345	2446	8.9
Clearwater	4015	1057	26.3
Cook	2135	376	17.6
Cottonwood	7000	522	7.5
Crow Wing	16411	2625	16.0
Dakota	106770	8536	8.0
Dodge	7718	1006	13.0
Douglas	12795	1503	11.7
Faribault	10763	1221	11.3
Fillmore	11568	1293	11.2
Freeborn	17775	2297	12.9
Goodhue	19029	1781	9.4
Grant	3282	331	10.1
Hennepin	514778	38358	7.5
Houston	9127	843	9.2
Hubbard	5346	979	18.3
Isanti	9972	1402	14.1
Itasca	17515	3927	22.4
Jackson	7293	441	6.0
Kanabec	5296	846	16.0
Kandiyohi	17258	1774	10.3
Kittson	3179	390	12.3
Koochiching	7463	1149	15.4
Lac qui Parle	5456	391	7.2
Lake	4557	1110	24.4
Lake of the Woods	1777	228	12.8
Le Sueur	11489	1713	14.9
Lincoln	3450	353	10.2
Lyon	14140	1243	8.8
McLeod	15975	1781	11.1
Mahnomen	2663	393	14.8
Marshall	6150	1205	19.6
Martin	13322	1147	8.6
Meeker	10479	1599	15.3
Mille Lacs	8590	1265	14.7
Morrison	13137	1978	15.1
Mower	17426	1812	10.4
Murray	5649	615	10.9
Nicollet	14474	1098	7.6
Nobles	11274	774	6.9
Norman	4295	428	10.0
Olmsted	56670	3790	6.7
Otter Tail	22963	3041	13.2
Pennington	6238	793	12.7
Pine	9464	1634	17.3
Pipestone	5274	376	7.1
Polk	15535	1725	11.1
Pope	5180	609	11.8
Ramsey	251284	18601	7.4
Red Lake	2141	410	19.1
Redwood	10174	815	8.0
Renville	10676	1137	10.7
Rice	22962	2631	11.5
Rock	5188	315	6.1
Roseau	5276	868	16.5
St. Louis (Inc. Duluth)	94272	21662	23.0
Scott	24606	2448	9.9
Sherburne	13880	1806	13.0
Sibley	8077	997	12.3
Stearns	49749	6086	12.2
Steele	15832	1466	9.3
Stevens	5572	481	8.6
Swift	6035	682	11.3
Todd	11126	1305	11.7
Traverse	2560	294	11.5
Wabasha	8995	1063	11.8
Wadena	5279	807	15.3
Waseca	8702	946	10.9
Washington	62036	4561	7.4
Watonwan	6363	562	8.8
Wilkin	4114	410	10.0
Winona	21861	2618	12.0
Wright	33951	4114	12.1
Yellow Medicine	7220	665	9.2

Technical Notes:

1/ Labor force data is computed according to BLS methodology. The method includes an adjustment to assure that the sum of the substate areas equals the separately estimated State total. This adjustment is Applied to all county and SMSA areas. County and area unemployment was multiplied by an adjustment factor of 1.47 ; employment was multiplied by 1.01. For a more detailed explanation see the Review of Labor and Economic Conditions, Vol. 4, No. 4, (February 1978 issue), p. 29.

2/ Anoka, Carver, Chisago, Dakota, Hennepin, Ramsey, Scott, Washington, and Wright Counties.

3/ Benton, Sherburne, and Stearns Counties.

Selected Minnesota Program Statistics

Characteristics of the Insured Unemployed

Tables 1 and 2 provide data on persons who filed a claim for unemployment compensation in Minnesota during the month. Only those claiming benefits from the regular State program are represented since data on the characteristics of Federal employees and veterans are not available.

In March, claimants for unemployment benefits fell by 5,576 or 6.7 percent from February. The over-the-month decline was the largest numerical drop since February 1978 and the biggest percentage decrease since February 1979. Almost 70 percent of the March decline took place in the mining, construction and manufacturing industries. Claimants in mining fell by 26 percent in March. Over-the-year, the number of claimants declined by 2,048 or 2.6 percent. Although the decrease was rather small, it was the first annual decline since October 1981. The decline from a year ago was largely the result of sizeable reductions in mining and construction claimants.

Table 1. Distribution of Insured Unemployed, By Age and Sex, March, 1983

Age Groups	Number	Percent Distributions		
		Men of Totals	Men of Men	Women of Women
TOTALS	78002	76.2	100.0	100.0
Under 45	60319	77.3	78.5	73.6
Under 25	16861	76.2	21.6	21.6
25-34	28955	79.5	38.7	32.0
35-44	14503	74.4	18.2	20.0
45 and Over	17683	72.3	21.5	26.4
45-54	9962	72.6	12.2	14.7
55 and Over	7721	71.9	9.3	11.7

Table 2. Distribution of Insured Unemployed By Industry and Occupation, March, 1983

Industry and Occupational Attachment	Number	Percent of Total	Percent Long-Term Unemployed 1/	Women as Percent of Total
Total, All Industries	78002	100.0	25.4	23.8
Ag., For., Fish.	2040	2.6	34.2	11.0
Mining	3543	4.6	38.0	5.4
Construction	21788	27.9	19.3	2.7
Manufacturing	20849	26.7	27.0	32.6
Pub. Utilities	3485	4.5	18.6	13.8
Wholesale Trade	5120	6.6	29.1	20.3
Retail Trade	8766	11.2	25.2	41.8
Fin., Ins., Real Est.	1418	1.8	36.0	53.9
Services	8832	11.3	29.7	47.9
Public Admin.	1324	1.7	28.9	29.6
Inf. Not Available	837	1.1	6.9	22.8
Total, All Occupations	78002	100.0	25.4	23.8
Prof., Tech., Mgr.	7100	9.1	32.6	35.5
Clerical	6278	8.1	30.5	78.1
Sales	2611	3.4	26.8	38.5
Services	4763	6.1	30.1	54.3
Farm., For., Fish.	1669	2.1	37.6	10.4
Processing	3741	4.8	11.2	33.7
Machine Trades	5035	6.5	30.1	12.4
Benchwork	6421	8.2	28.8	52.5
Structural Work	24589	31.5	19.9	1.7
Misc.	15528	19.9	26.2	8.9
Inf. Not Available	267	0.3	22.1	34.1

1/ Long-Term unemployed refers to unemployment insurance claimants whose current spell of unemployment has lasted 15 weeks or longer.

Job Service Applicant Supply and Demand

Table 3 compares Job Service (J.S.) job applicants with the J.S. job openings that existed at the end of the month. These comparisons are expressed as supply/demand ratios. Other things being equal, the greater the ratio of applicants to openings, the greater the competition has been for work within that occupational category. To put these ratios into context, the reader must remember that not only do job seekers and employers in general find jobs or recruit workers through other means, but those interested in certain kinds of jobs are particularly unlikely to use the J.S. For example, workers seeking professional and Managerial jobs are least likely to use the J.S., whereas employers usually recruit construction workers through union halls and hire teachers directly. Thus, the main value of Table 3 is that it reflects, for broad occupational groups, the relative labor market conditions that those using the J.S. encountered when seeking work.

Table 3. Experienced Supply/Job Openings Demand1/

Occupation	Applicants (Supply) March 1983	Job Openings (Demand) March 1983	Supply/Demand Ratio	
			March 1983	March 1982
Total	140842	11980	11.8	10.0
Prof., Tech., Mgr.	20115	1789	11.2	8.9
Clerical	22536	2742	8.2	10.7
Sales	6747	1364	4.9	3.2
Dom. Services	1325	426	3.1	8.8
Other Services	18433	1973	9.3	4.9
Farm., Fish., For.	2759	472	5.8	43.1
Processing	3625	434	8.4	7.6
Machine Trades	11299	344	32.8	20.3
Benchwork	9628	299	32.2	23.3
Structural Work	22007	937	23.5	38.6
Mtr. Frght., Trans.	6866	277	24.8	22.8
Pkg. & Mat. Hndlg.	13588	848	16.0	13.7
Other	1914	68	28.1	27.9

1/ Inexperienced and improperly coded job applicants are not included in this table.

7/29/83 S4160 - 3 A

CURRENT MINNESOTA LABOR MARKET CONDITIONS

June 1983 Supplement to The Review of Labor and Economic Conditions
Prepared by the Research and Statistical Services Office, MN Dept. of Economic Security, 390 N. Robert St., St. Paul MN 55101, in cooperation with the U.S. Department of Labor, Bureau of Labor Statistics, and Employment and Training Admin.

Nation

Economic data for May indicated that the recovery that began in January is not only continuing but is becoming quite robust. Also, a very preliminary estimate of real gross national product suggested that second quarter growth will be much stronger than economists had expected.

Although the seasonally adjusted unemployment rate fell only 0.1 of a point to 10.1 percent in May, it has declined by 0.7 of a point since December. Total employment, also adjusted, rose 99,000 in May after a large gain of 355,000 in April. Even more significant was that seasonally adjusted nonfarm payroll employment, a reliable indicator of current economic health, climbed by a strong 374,000 in May following an increase of 273,000 in April. Payroll employment has grown by 800,000 since December.

Other economic developments in May are indicative of a widening recovery. Industrial production rose for the sixth consecutive month in May while retail sales climbed for the third month in a row. After declines in March and April, housing starts rose to their highest level in May since September 1979. Also, largely as a result of strong gains in wages and salaries in May, personal income grew by 1.2 percent, the steepest rise since July 1981. Moreover, consumer spending rose 1.4 percent in May after an increase of 1.1 percent in April. The recent strength in personal income and spending should lead to even further improvement in the economy.

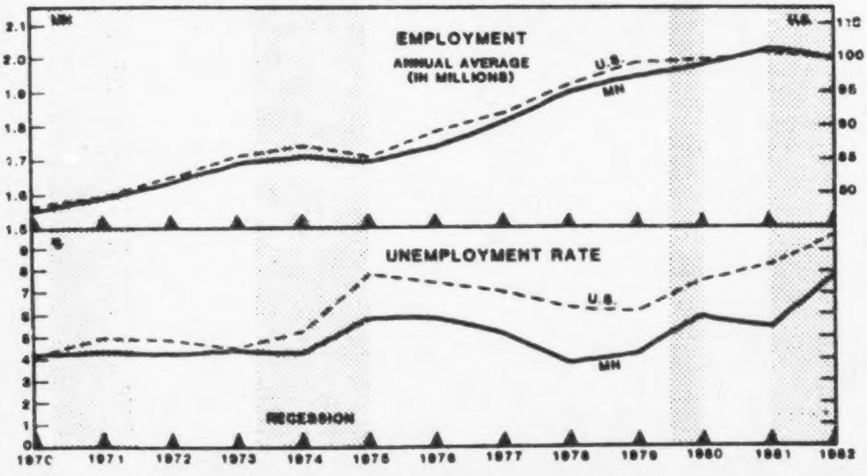
State

After showing little strengh during the first four months of 1983, the State's economy picked up noticeably in May. The unemployment rate fell more than it usually does in May and although total employment rose at a normal rate for May, seasonally adjusted nonagricultural wage and salary employment increased significantly in May.

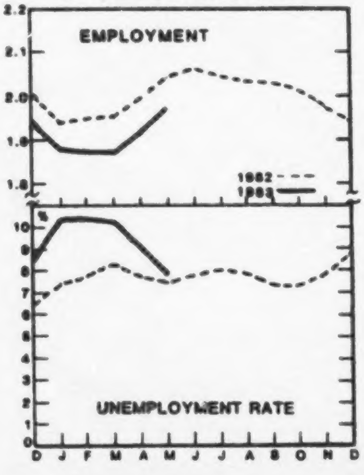
The State's seasonally unadjusted unemployment rate declined by 1.1 percentage points to 7.9 percent in May. This drop in the rate was considerably steeper than the average April to May drop of 0.7 of a point. Total employment, also unadjusted, rose 2.4 percent in May, very close to the average May rise of 2.5 percent. Seasonally adjusted nonfarm payroll employment, however, climbed by 7,200 in May, the largest gain since payroll employment began its upswing in January. Nearly 60 percent of the May increase in payroll employment was in the construction sector. However, the growth in manufacturing employment has been very slow since December, indicating that a lot of adjustments are occuring in manpower utilization in the industry.

Other data suggest that the Minnesota economy will improve further in the coming months. Seasonally adjusted average weekly initial claims, an indicator of future unemployment, fell by 23 percent in May. However, this may be more attributable to work eligibility requirement of the law than significant gains in job opportunities. Meanwhile, building permits for private housing (seasonally adjusted) rose to the highest monthly rate since December 1980.

Labor Force Estimates	MINNESOTA (Numbers in '000's)			UNITED STATES (Numbers in '000,000's)		
	May 1983	Change From		May 1983	Change From	
		Last Mo.	Year Ago		Last Mo.	Year Ago
Civilian Labor Force	2145.5	26.3	-60.0	110.3	0.4	0.4
Employed	1975.8	46.9	-66.2	99.5	0.7	-0.4
Unemployed	169.7	-20.6	6.2	10.8	-0.3	0.8
Unemployment Rate						
Actual	7.9	-1.1	0.5	9.8	-0.2	0.7
Seasonally Adjusted	n.a	n.a	n.a	10.1	-0.1	0.6



MN and the U.S., Employment & Unemployment Rate



MN, 1982 and 1983

Minnesota Nonagricultural Wage & Salary Employment, Hours, and Earnings

INDUSTRY	EMPLOYMENT[1/] (thousands)			PER CENT CHANGE FROM		PRODUCTION WORKERS' HOURS & EARNINGS					
						Average Weekly Earnings		Average Hourly Earnings		Average Weekly Hours	
	May 1983	April 1983	May 1982	April 1983	May 1982	May 1983	April 1983	May 1983	April 1983	May 1983	April 1983
TOTAL NONAGRICULTURAL	1706.4	1678.6	1733.1	1.7	-1.5						
MANUFACTURING	334.5	332.5	346.6	0.6	-3.5	371.45	365.57	9.50	9.52	39.1	38.4
Durable Goods	198.6	197.7	209.0	0.4	-5.0	378.10	367.44	9.50	9.47	39.8	38.8
Furniture, Lumber and Wood	13.6	13.4	12.8	1.2	6.0	398.27	381.38	10.16	10.17	39.2	37.5
Stone, Clay and Glass	8.4	7.8	8.4	7.9	-0.3	363.23	364.33	9.41	9.39	38.6	38.8
Primary Metals	4.8	4.7	5.6	1.1	-14.5	340.38	334.37	8.75	8.64	38.9	38.7
Fabricated Metals	32.0	32.1	33.6	-0.3	-4.8	418.59	409.37	10.31	10.39	40.6	39.4
Nonelectrical Machinery	76.3	75.9	83.4	0.5	-8.5	381.21	369.57	9.70	9.70	39.3	38.1
Electrical Machinery	26.0	26.2	26.3	-1.1	-1.5	340.57	325.26	8.43	8.34	40.4	39.0
Transportation Equipment	5.8	5.9	6.0	-0.6	-3.1	413.70	365.40	10.24	9.77	40.4	37.4
Other Durable Goods 2/	31.7	31.6	32.7	0.1	-3.2	357.78	358.58	8.90	8.92	40.2	40.2
Nondurable Goods	135.9	134.7	137.7	0.9	-1.2	361.95	362.88	9.50	9.60	38.1	37.8
Food and Kindred	43.4	42.8	44.0	1.5	-1.2	326.37	339.90	8.68	9.04	37.6	37.6
Textile and Apparel	4.5	4.5	5.3	-0.4	-14.6	230.58	224.93	6.30	6.39	36.6	35.2
Paper and Allied	32.0	31.8	32.6	0.8	-1.6	450.91	446.68	10.56	10.51	42.7	42.5
Printing and Publishing	35.1	35.1	35.3	0	-0.4	355.00	350.19	10.33	10.33	34.2	33.9
Chemical and Petroleum	9.4	9.3	9.1	1.5	3.2	403.92	409.22	10.20	10.36	39.6	39.5
Rubber and Leather	11.4	11.3	11.5	1.5	-0.3	304.24	296.11	8.07	7.96	37.7	37.2
NONMANUFACTURING	1371.9	1346.1	1386.5	1.9	-1.0						
Mining and Quarrying	9.5	9.2	12.5	2.3	-24.0	387.60	404.59	12.00	11.97	32.3	33.8
Metal Mining	7.5	7.7	10.7	-2.4	-30.1	395.63	420.34	12.64	12.51	31.3	33.6
Construction	58.8	49.0	60.0	20.1	-2.0	547.94	475.48	14.69	14.63	37.3	32.5
Building	15.9	13.7	16.6	16.0	-3.9	512.19	441.22	13.55	13.66	37.8	32.3
Highway and Heavy	10.7	6.4	9.8	65.8	9.4	472.08	361.91	12.23	11.17	38.6	32.4
Special Trades	32.2	28.8	33.6	11.8	-4.3	593.49	521.89	16.26	15.96	36.5	32.7
Transportation	61.3	60.3	61.7	1.7	-0.6						
Railroads	13.2	13.2	14.0	0	-6.2	526.50	526.50	11.25	11.25	46.8	46.8
Trucking and Warehousing	23.0	22.5	23.1	1.9	-0.7	429.43	421.50	11.83	11.84	36.3	35.6
Public Utilities	33.0	32.8	34.2	0.7	-3.4	476.67	478.28	12.16	12.17	39.2	39.3
Communications	19.0	18.8	19.9	1.1	-4.5	434.25	434.25	11.25	11.25	38.6	38.6
Elec., Gas and Sanitary	14.0	14.0	14.3	0.2	-2.0	523.77	528.12	13.16	13.17	39.8	40.1
Trade	430.2	422.1	435.2	1.9	-1.2	215.75	211.56	7.24	7.27	29.8	29.1
Retail	320.0	313.1	320.5	2.2	-0.2	172.07	167.05	6.28	6.28	27.4	26.6
General Merchandise	43.4	42.9	45.0	1.1	-3.7	166.28	158.87	5.96	5.95	27.9	26.7
Food Stores	45.3	44.5	44.6	1.9	1.7	208.29	204.52	7.36	7.41	28.3	27.6
Automotive	34.1	33.4	34.2	2.1	-0.4	257.75	251.68	7.22	7.15	35.7	35.2
Eating and Drinking	108.9	105.6	108.8	3.2	0.1	102.27	98.28	4.67	4.68	21.9	21.0
Wholesale	110.2	109.0	114.7	1.1	-3.9	368.43	365.31	9.67	9.69	38.1	37.7
F.I.R.E.	97.9	97.8	98.4	0.1	-0.4						
Finance	46.7	46.6	45.9	0.2	1.6						
Insurance	35.1	35.2	35.8	-0.5	-2.1						
Real Estate	16.2	16.0	16.6	1.1	-2.4						
Service Industries	389.4	384.5	383.6	1.3	1.5						
Hotel and Lodging	20.9	19.7	21.1	6.1	-0.9						
Business Services	57.8	56.8	55.8	1.7	3.6						
Health Services	134.5	134.6	131.4	0	2.3						
Private Education	24.1	24.4	24.1	-1.2	-0.1						
Soc. Serv., Museums etc.	82.2	81.6	82.4	0.7	-0.3						
Government	291.8	290.5	300.9	0.5	-3.0						
Federal	29.8	29.8	30.3	0.2	-1.4						
State	73.7	73.9	73.8	-0.3	-0.1						
Local	188.3	186.8	196.9	0.8	-4.4						

[1/] Totals may not add because of rounding.

[2/] Includes Scientific Instruments and Miscellaneous Industries.

Labor Force Data: State, SMSAs, and Counties

Area or County	May, 1983 Prelim.		
	Labor[1/] Force	Unemp.	Un. Rate
State of Minnesota	2145487	169727	7.9
Metropolitan Areas			
Duluth/Superior (Duluth City Only)	36432	4410	12.1
Fargo/Moorhead (Clay County, MN Only)	27792	1988	7.2
Minneapolis/St. Paul SMSA[2/]	1149396	76139	6.6
Rochester SMSA (Olmsted Co.)	58009	3059	5.3
St. Cloud SMSA[3/]	78175	7135	9.1
Counties			
Aitkin	5417	1046	19.3
Anoka	110126	8523	7.7
Becker	12496	1554	12.4
Beltrami	16200	1400	8.6
Benton	12074	1114	9.2
Big Stone	3990	261	6.5
Blue Earth	29138	1766	6.1
Brown	15439	1106	7.2
Carlton	12084	1596	13.2
Carver	20395	1191	5.8
Cass	10688	1188	11.1
Chippewa	7229	582	8.1
Chisago	14445	1114	7.7
Clay	27792	1988	7.2
Clearwater	4156	738	17.8
Cook	2291	336	14.7
Cottonwood	7671	488	6.4
Crow Wing	17334	1887	10.9
Dakota	106988	6364	5.9
Dodge	8350	713	8.5
Douglas	13695	1061	7.7
Faribault	10973	812	7.4
Fillmore	12608	915	7.3
Freeborn	17952	1411	7.9
Goodhue	19447	1402	7.2
Grant	3644	232	6.4
Hennepin	522417	34403	6.6
Houston	10014	637	6.4
Hubbard	5573	723	13.0
Isanti	10278	1065	10.4
Itasca	18132	2837	15.6
Jackson	8166	461	5.6
Kanabec	5692	657	11.5
Kandiyohi	18012	1340	7.4
Kittson	3386	280	8.3
Koochiching	7592	972	12.8
Lac qui Parle	6002	289	4.8

Area or County	May, 1983 Prelim.		
	Labor[1/] Force	Unemp.	Un. Rate
Lake	4741	1597	33.7
Lake of the Woods	1942	163	8.4
Le Sueur	11954	1212	10.1
Lincoln	3963	225	5.7
Lyon	14683	865	5.9
McLeod	16922	1305	7.7
Mahnomen	2988	329	11.0
Marshall	6632	883	13.3
Martin	14181	1038	7.3
Meeker	11085	1261	11.4
Mille Lacs	9014	891	9.9
Morrison	12904	1395	10.8
Mower	18147	1370	7.5
Murray	6303	411	6.5
Nicollet	14928	838	5.6
Nobles	11921	529	4.4
Norman	4725	283	6.0
Olmsted	58009	3059	5.3
Otter Tail	24934	2530	10.1
Pennington	6383	636	10.0
Pine	9800	1127	11.5
Pipestone	5759	265	4.6
Polk	16334	1873	11.5
Pope	5770	413	7.2
Ramsey	254925	16580	6.5
Red Lake	2381	384	16.1
Redwood	11130	677	6.1
Renville	11854	1076	9.1
Rice	23663	1933	8.2
Rock	5741	206	3.6
Roseau	5695	591	10.4
St. Louis (Inc. Duluth)	92683	16013	17.3
Scott	24444	1747	7.1
Sherburne	14590	1576	10.8
Sibley	8573	604	7.0
Stearns	51511	4445	8.6
Steele	17379	1291	7.4
Stevens	5989	301	5.0
Swift	6540	573	8.8
Todd	11983	937	7.8
Traverse	2949	194	6.6
Wabasha	9622	787	8.2
Wadena	5556	544	9.3
Waseca	9013	696	7.7
Washington	62503	3634	5.8
Watonwan	6924	573	8.3
Wilkin	4533	356	7.9
Winona	22256	2033	9.1
Wright	33148	2583	7.8
Yellow Medicine	7984	443	5.5

Technical Notes:

1/ Labor force data is computed according to BLS methodology. The method includes an adjustment to assure that the sum of the substate areas equals the separately estimated State total. This adjustment is Applied to all county and SMSA areas. County and area unemployment was multiplied by an adjustment factor of 1.51 ; employment was multiplied by 1.01. For a more detailed explanation see the Review of Labor and Economic Conditions, Vol. 4, No. 4, (February 1978 issue), p. 29.

2/ Anoka, Carver, Chisago, Dakota, Hennepin, Ramsey, Scott, Washington, and Wright Counties.

3/ Benton, Sherburne, and Stearns Counties.

Selected Minnesota Program Statistics

Characteristics of the Insured Unemployed

Tables 1 and 2 provide data on persons who filed a claim for unemployment compensation in Minnesota during the month. Only those claiming benefits from the regular State program are represented since data on the characteristics of Federal employees and veterans are not available.

Total claimants for unemployment benefits fell by 17,141 or 28 percent between April and May. The May decline followed a drop of 16,232 or 21 percent from March to April and was the largest numerical decrease for May since the unduplicated count of claimants first became available in 1977. Also, the May drop was the steepest percentage decline since May 1979. Claimants in construction accounted for half of the over-the-month decline in total claimants. Over-the-year, the total number of claimants decreased by 14,661 or 15 percent. The May drop from the year earlier was the third in a row. Half of the decline from a year ago was in claimants in manufacturing while about one-fifth of the decrease was among construction claimants.

Table 1. Distribution of Insured Unemployed, By Age and Sex, May 1983

Age Groups	Number	Percent Distributions		
		Men of Totals	Men of Men	Women of Women
TOTALS	44629	68.5	100.0	[illegible]
Under 45	33822	69.6	77.0	73.2
Under 25	8711	69.3	19.8	19.0
25-34	16426	71.7	38.5	33.0
35-44	8685	65.7	18.7	21.2
45 and Over	10807	65.2	23.0	26.8
45-54	5964	65.2	12.7	14.8
55 and Over	4843	65.2	10.3	12.0

Table 2. Distribution of Insured Unemployed By Industry and Occupation, May 1983

Industry and Occupational Attachment	Number	Percent of Total	Percent Long-Term Unemployed 1/	Women as Percent of Total
Total, All Industries	44629	100.0	33.2	31.8
Ag., For., Fish.	513	1.2	43.2	20.9
Mining	1444	3.2	26.0	3.8
Construction	7993	17.9	36.2	4.4
Manufacturing	13770	30.9	31.5	35.7
Pub. Utilities	2275	5.1	31.1	16.9
Wholesale Trade	3381	7.6	38.3	25.9
Retail Trade	6015	13.5	36.4	45.0
Fin., Ins., Real Est.	1182	2.6	39.2	58.1
Services	6719	15.1	29.9	52.9
Public Admin.	646	1.4	35.4	41.1
Inf. Not Available	691	1.5	7.1	35.1
Total, All Occupations	44629	100.0	33.2	31.8
Prof., Tech., Mgr.	5802	13.0	32.8	38.3
Clerical	5129	11.5	34.4	79.1
Sales	1928	4.3	36.5	40.7
Services	3311	7.4	35.0	53.6
Farm., For., Fish.	403	0.9	34.4	9.9
Processing	2740	6.1	21.1	35.1
Machine Trades	3346	7.5	33.4	15.2
Benchwork	3969	8.9	34.7	56.8
Structural Work	9829	22.0	35.0	2.2
Misc.	7622	17.1	32.1	15.0
Inf. Not Available	550	1.3	46.1	38.2

1/ Long-Term unemployed refers to unemployment insurance claimants whose current spell of unemployment has lasted 15 weeks or longer.

Job Service Applicant Supply and Demand

Table 3 compares Job Service (J.S.) job applicants with the J.S. job openings that existed at the end of the month. These comparisons are expressed as supply/demand ratios. Other things being equal, the greater the ratio of applicants to openings, the greater the competition has been for work within that occupational category. To put these ratios into context, the reader must remember that not only do job seekers and employers in general find jobs or recruit workers through other means, but those interested in certain kinds of jobs are particularly unlikely to use the J.S. For example, workers seeking professional and Managerial jobs are least likely to use the J.S., whereas employers usually recruit construction workers through union halls and hire teachers directly. Thus, the main value of Table 3 is that it reflects, for broad occupational groups, the relative labor market conditions that those using the J.S. encountered when seeking work.

Table 3. Experienced Supply/Job Openings Demand 1/

Occupation	Applicants (Supply) May 1983	Job Openings (Demand) May 1933	Supply/Demand Ratio	
			May 1983	May 1982
Total	102433	5254	19.5	10.7
Prof., Tech., Mgr.	12570	495	25.4	10.2
Clerical	17006	1097	15.5	10.2
Sales	4652	802	5.8	4.5
Dom. Services	1412	99	14.3	3.2
Other Services	14737	1013	14.5	5.8
Farm., Fish., For.	2681	56	47.9	53.3
Processing	2573	324	7.9	7.0
Machine Trades	7665	131	58.5	20.7
Benchwork	6111	156	39.2	20.8
Structural Work	15498	260	59.6	37.6
Mtr. Frght., Trans.	4832	117	41.3	17.9
Pkg. & Mat. Hndlg.	10989	667	16.5	11.7
Other	1707	37	46.1	26.3

1/ Inexperienced and improperly coded job applicants are not included in this table.

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All signed articles appearing in this publication together with the Editorial Comment represent the views of the author or editor and not necessarily those of the Department. Questions or comments to the authors may be directed to the Research and Statistical Services Office of the Minnesota Department of Economic Security, 390 N. Robert Street, St. Paul, Minnesota, 55101 or (612) 296-6545.

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Editorial Comment

BRINGING INTEGRITY TO POVERTY STATISTICS

By R. Pinola

In the last issue of the Review we discussed the need to re-examine the basic philosophy of our unemployment insurance system in reference to changes in social policy and attitudes regarding worker training and investment in human capital. We now consider how, as a society, we define and measure poverty.

When Mollie Orshansky, an economist with the Social Security Administration, proposed the use of an admittedly crude criterion for measuring poverty in 1963, she employed the U.S. Department of Agriculture (USDA) economy food budget for 1961 to develop a threshold money income for counting the Nation's poor. Reduced to bare essentials, Orshansky multiplied the cash or money value of the USDA economy food budget by the reciprocal or inverse of the proportion of after-tax money income that the average family spent on food as established by the USDA's 1955 Survey of Food Consumption. The 1955 survey indicated that the proportion of after-tax income that the average urban family of four (two adults and two children) spent on food was 0.33 or 33 percent. Thus, the reciprocal of 0.33 is 3, and this becomes the multiplier for the USDA economy food budget to arrive at the threshold money income. By way of example, the USDA economy food budget for a family of four in 1961 was estimated at 70 cents a day per person. Translating this into a yearly economy food budget for a family of four, we would have $0.70 x 4 x 365 = $1,022. Then multiplying by the factor of 3 referred to above, we obtain a money income poverty threshold of $3,066 for a family of four.

When President Lyndon Johnson declared the War on Poverty as his major policy objective in 1964, Orshansky's criterion, with some modification, was adopted for making counts of the poor and monitoring its incidence over time. To keep pace with inflation, the threshold money income was to be adjusted by changes in the Consumer Price Index for relevant commodities. Despite some inconsistency in the formulation itself (e.g., a family's before-tax money income was to be compared against the poverty threshold money income based on after-tax income to determine whether a family met the poverty criteria), the criterion became widely used after adjustments for family size and farm versus nonfarm status of families. However, when introduced and used in 1964, the value of in-kind services to the poor were substantially less than they are today. 1/ Consequently, it is questionable whether valid comparisons of poverty today against its incidence in earlier years can be made without valuing in-kind services. Moreover, the Bureau of Labor Statistics (BLS) household expenditure surveys indicate that the proportion of family expenditures on food have declined since the USDA's 1955 Survey of Food Consumption. In short, what we are faced with today is not only the inconsistent features in the formulation itself, but a failure to recognize that in-kind services have become a substantial part of income for many Americans, especially low income Americans.

1/ Between 1965 and 1980, the cost of government transfers for the food, medical, and housing programs alone, rose from roughly $2.2 billions to $72.5 billions. Even in constant 1965 dollars, there was in excess of a ten-fold increase (to $27.7 billions) over the 15 year period. By 1980, over $2 of every $3 in means-tested government assistance to the poor was for in-kind food, medical, and housing benefits.

To give an indication of how the inclusion of in-kind services can affect the incidence of poverty in the United States, a recent study by Timothy Smeeding for the Bureau of the Census estimated that if the market value of only in-kind food, medical, and housing services were included as part of income, the 1979 poverty rate would have been 6.4 percent instead of the official rate of 11.1 percent reported by the Census Bureau. There is, of course, considerable disagreement on how best to value in-kind services. Some economists and policy-makers feel that market value should be used, while others contend that a cash equivalent value be established based on an individual's choice between a particular in-kind service and some cash equivalent. It is obvious that the latter approach has a nice theoretical base since it is predicated on the utility maximizing priciple that is the corner stone of consumer welfare theory in economics. However, designing an operationally valid method for incorporating the cash equivalent value of in-kind services is very difficult, if not impossible.

In addition to the two suggested methods noted above, other proponents argue that incorporating the government's cost of providing services would introduce more realism in measuring the value of in-kind services. Still others recommend using the poverty budget share approach in which the value of an in-kind service is no greater than that which is based on the observed consumption levels of people near the poverty threshold. This means that an in-kind service or benefit would be limited to no more than the amounts that are assumed to be part of poverty level expenditures. Thus, if $3,000 was the estimated market value of housing provided to a family near the poverty level, but a poverty level family spends only $1,800 on housing, the value of the in-kind service could not be more than $1,800.

In addition to the valuation problem, the treatment of in-kind services must recognize that not all poor are recipients of such benefits. At present, our data systems are not adequate to make such dichotomous estimates. The Current Population Survey has, since 1979, included additional questions to help address this problem, but it is still inadequate to the task.

Given the disagreement that exists with respect to valuing in-kind service, it becomes quickly evident that their inclusion as income that a family has at its disposal for comparison against the threshold income is a problem for policy makers. Yet the failure to address the issue and make a decision is like burying one's head in the sand and hoping for some miraculous solution to a problem. It is also axiomatic that the failure to address a problem will not preclude bad or worse decisions. While the machinist's rule of "if it isn't broke, don't fix it" applies to much of our social engineering, we should be prepared to recognize a state of disrepair without being beat with a bigger hammer.

Research Summaries

DISCOURAGED WORKERS

By B. Steuernagel

Official statistics on unemployment are among the most widely used indicators of economic and social policy performance. In addition unemployment statistics are frequently used in formulas to allocate federal and state money for job training and economic development programs. One controversial aspect of the official unemployment is the "discouraged worker". These are jobless workers who are not looking for work because they believed that no jobs were available in the area or that no jobs were available for which they could qualify. Because they are not actively seeking work, there are not considered to be in the labor force and are, technically, not unemployed. This article summarizes a special report1/ done several years ago for the National Commission for Manpower Policy by Dr. Harold Wool. The report summarizes various techniques for estimating the number of discouraged workers and examines the characteristics of this population group.

Two general approaches to measuring discouraged workers are econometric models, such as cross-sectional models and time series analyses, and direct surveys, such as the Current Population Survey (CPS). Cross-sectional models examine the factors affecting interarea variations in labor force participation rates for particular population groups at a single point in time, such as the decennial census. Time series analyses focus more specifically on the relationship between labor force participation and cyclical changes in labor demand, as measured by either employment or unemployment rates, after adjusting for seasonal or long-term trends. With respect to direct surveys, supplementary questions have been included in the CPS since 1967 to gather data on discouraged workers. The reported number of discouraged workers are further classified each quarter based on the more specific reason why he or she feels it is impossible to find a job. These factors are "job market factors" or "personal factors". The following tables show trends in the numbers of discouraged workers from 1970 and characteristics of discouraged workers during the second quarter of 1983.

Table 1

Trends in Discouraged Workers
1970 - 1983

Year	Unemployment Rate	Discouraged Worker Percent 1/	Discouraged Workers (In Thousands) Total	Job Market Factors 2/	Personal Factors 3/
1970	4.9	0.53	638	437	201
1971	5.9	0.63	774	537	236
1972	5.6	0.62	765	540	226
1973	4.9	0.55	679	491	188
1974	5.6	0.51	686	464	222
1975	8.5	0.91	1,082	855	227
1976	7.7	0.67	910	643	267
1977	7.1	0.69	1,010	693	316
1978	6.1	0.55	845	570	275
1979	5.8	0.47	750	500	250
1980	7.1	0.60	970	648	322
1981	7.6	0.74	1,103	808	296
1982	9.7	1.06	1,568	1,181	386
1983 (2Q)	10.0	1.14	1,646	1,290	355

Source: Employment and Earnings, U.S. Department of Labor, Bureau of Labor Statistics

1/ Workers discouraged due to job market factors as a percentage of civilian labor force plus discouraged workers.

2/ Includes those who "had looked but could not find a job" and "think no job is available".

3/ Include those who feel "employers think I'm too young or too old," "I lack education, skills, training," and "I have other personel handicaps".

1/ Discouraged Workers, Potential Workers, and National Employment Policy, A Special Report of the National Commission for Manpower Policy, June 1978.

Table 2 Percentage Distribution of U.S. Civilian Labor Force, Unemployed Workers, and Discouraged Workers, By Sex Race and Age Groups: Second Quarter 1983

Sex, Age, and Race	Civilian Labor Force	Unemployed	Discouraged Workers		
			Total	Job Market Factors	Personal Factors
Total Number (In Thousands)	111,189	11,123	1,646	1,290	355
Percent Distributions:					
Males:	56.7	58.7	40.7	41.1	39.4
16-19	4.0	9.5	7.1	6.2	10.4
20-24	7.8	12.8	8.3	8.8	6.2
25-59	40.8	34.2	18.5	21.6	7.0
60 and over	4.2	2.2	6.9	4.4	16.1
White*	50.0	45.2	30.0	30.3	29.0
Black*	5.4	11.8	9.3	9.6	8.2
Hispanic Origin*	3.3	4.5	3.0	3.1	2.5
Females:	43.3	41.3	59.2	58.9	60.6
16-19	3.5	8.4	7.0	5.7	11.5
20-24	6.6	8.9	8.5	8.6	8.2
25-59	30.3	22.8	36.3	38.6	28.2
60 and over	2.8	1.1	7.4	6.0	12.7
White*	37.0	30.3	42.2	41.7	43.9
Black*	5.1	9.8	15.7	16.2	14.1
Hispanic Origin*	2.2	3.3	6.1	6.1	5.9

Source: Employment and Earnings, U.S. Department of Labor, Bureau of Labor Statistics

* Percentages for race and Hispanic - origin groups will not sum to 100 percent because data for "other races" group are not present and Hispanics are included in both white and black population groups.

There are some similar conclusions and some differences regarding the estimates of discouraged workers from the CPS and econometric models. First of all, with respect to similarities, both methodologies conclude that the number varies directly with the overall level of job opportunity. Also, all of the studies have found that the discouraged worker phenomenon is very largely concentrated among those groups often referred to as secondary workers, such as women, youth, and older persons, as well as minority groups. With regard to differences, the two approaches have resulted in substantially different ranges of estimates of the magnitude and growth of hidden unemployment in recent years. Econometric analyses of the 1970 to 1975 period showed the number of discouraged workers increasing by from 700,000 to 1.7 million, whereas the CPS reported an increase of only 440,000. The CPS data also has shown less sensitivity of particular groups of discouraged workers to changes in labor market conditions than is suggested by empirical studies of actual changes in labor force participation.

Dr. Wool's report points out the need for improving the method for estimating the numbers of "hidden unemployed" so that the universe of persons in need of employment services can be more accurately estimated and that funds can be allocated to target groups in proportion of their actual needs.

The Job Market

MECHANICS

By B.J. Jones

In 1978 there were over 53,000 workers in Minnesota employed as Mechanics. They include Automobile Mechanics; Heavy Equipment Mechanics; Farm Machinery Mechanics; Household Appliance Mechanics; Air Conditioning, Heating, and Refrigeration Mechanics; Aircraft Mechanics, and various other miscellaneous types of Mechanics. The focus of this article will be on the three largest groups of Mechanics which comprise over 75 percent of Minnesota's Mechanics; namely, Automobile, Heavy Equipment, and Farm Machinery Mechanics.

Automobile Mechanics

Automobile Mechanics provide a very important service; whether it is repairing a car after it has broken down or providing routine maintenance in order to keep it running smoothly. The ability to make a quick and accurate diagnosis, one of the Mechanic's most valuable skills, requires good reasoning ability and a thorough knowledge of cars. Many Mechanics consider diagnosing "hard to find" troubles one of their most challenging and satisfying duties. Once the cause of the problem is found, Mechanics make the necessary adjustments or repairs.

Most Automobile Mechanics perform a variety of repairs, others specialize. Some fields of specialty are: automatic transmissions, tune-ups, air conditioning, front-ends, electrical system repair, brakes, and radiators.

Most Automobile Mechanics learn the trade on the job. Beginners usually start as helpers, lubrication workers, or gas station attendants, and gradually acquire skills by working with experienced mechanics. However, a three or four year formal apprenticeship program is recommended. Mechanics are certified in one or more of eight different service areas. General Automobile Mechanics are certified in all eight areas. Certification require two years experience and successful completion of a written examination for each service area.

The 1983 median salary of Automobile Mechanics in Minnesota is $10.91 an hour.1/ This figure is up 27.8 percent from the 1980 figure of $8.54. Median 1983 salaries ranged from a low of $8.50 an hour in Southeast Minnesota to a high of $11.55 an hour in Northeast Minnesota.

Approximately 20,700 persons were employed as Automobile Mechanics in Minnesota in 1978, nearly one half of these workers are in the Twin Cities Metro Area.2/ By 1985, employment is expected to reach 25,400. The number of employed Automobile Mechanics is anticipated to increase at approximately the same rate as total employment in the State. The retirement and death of experienced Mechanics is expected to add another several hundred job openings a year in Minnesota. Additional job openings will occur as employment grows. Most persons who enter the occupation may expect steady work because changes in economic conditions have little effect on the automobile repair business. During a downturn, however, some employers may be more reluctant to hire inexperienced workers.

1/ Source: 1983 Minnesota Salary Survey by Area, Research and Statistical Services Office, Minnesota Department of Economic Security, March 1983

2/ Source: Minnesota Employment Outlook to 1985, Research and Statistical Services Office, Minnesota Department of Economic Security, January 1981.

Heavy Equipment Mechanics

Heavy Equipment Mechanics comprise the second largest groups of Mechanics in the State. They work on both diesel and gasoline engines in trucks, buses, and other large equipment. Many of the Mechanics spend much of their time doing preventive maintenance to assure safe operation, prevent wear and damage to parts, and reduce costly breakdowns. In many shops Mechanics do all kinds of repair work. In some larger shops, however, Mechanics specialize in one or two types of work.

As with Automobile Mechanics, Heavy Equipment Mechanics learn their skills on the job. A four year formal apprenticeship program is also recommended for Heavy Equipment Mechanics. Mechanics may be certified as General Heavy Duty Truck Mechanics or may be certified in one or more of six different areas of heavy duty truck repair

The 1983 median salary of Heavy Equipment Mechanics in Minnesota is $12.13 an hour. This figure is up 25.5 percent from the 1980 figure of $9.67. Median 1983 salaries ranged from a low of $8.00 an hour in Southwest Minnesota to a high of $12.39 an hour in the Twin Cities Area.

Over 15,500 Heavy Equipment Mechanics were working in Minnesota in 1978. The Twin Cities area employed half of the Mechanics. The number of Mechanics is expected to increase at a slightly slower pace than total employment in the State. By 1985, 17,300 persons are projected to be employed as Heavy Equipment Mechanics. The majority of the expected 600 annual job openings will be the result of deaths and retirements of experienced Mechanics.

Farm Machinery Mechanics

Farm equipment has grown enormously in size, complexity, and variety. As farm machinery grew more complex, it became important for the sellers of farm equipment to be able to service and repair the machines they sold. Today almost every dealer employes Farm Equipment Mechanics to perform these services. Mechanics spend much of their time repairing and adjusting malfunctioning equipment that has be brought to the shop, but during planting and harvesting, they may travel to the farm to make emergency repairs. Mechanics also perform preventive maintenance.

Employers generally prefer applicants who have an aptitude for mechanical work and stress previous experience. A farm background is an advantage. With the growing complexity of farm equipment, some employers prefer one to two years of vocational training in agricultural mechanics. Few Farm Machinery Mechanics, however, go through the formal three to four year apprenticeship program.

Over 4,200 workers were employed as Farm Equipment Mechanics in Minnesota in 1978. Employment in this occupation is expected to increase by 21 percent by 1985, topping the 5,100 mark. Job opportunities should be best for applicants who have lived or worked on farms and know how to operate farm machinery and make minor repairs. Due to the complexity of today's farm machinery, farmers will have to rely more on skilled Mechanics in the future. As with most agricutural occupations, the demand for Farm Equipment Mechanics is highest during planting and harvesting seasons. Mechanics may work 60 to 80 hours a week during this time and, in the winter months, less than 40 hours a week or may even be laid off.

SUPPLY/DEMAND FOR SPECIFIC OCCUPATIONS, JULY, 1983[1]

By S. Hamper

MINNESOTA

Shortage Occupations: computer programmers#, commissioned sales persons#, highly skilled clerical workers#

Surplus Occupations: *factory workers#, general laborers#*

CENTRAL MINNESOTA

Shortage Occupations: computer programmers, commissioned sales persons#, experienced auto mechanics

Surplus Occupations: *welders#, machinists#, machine operators, factory laborers#*

MINNEAPOLIS-ST. PAUL

Shortage Occupations: commissioned sales persons#, experienced computer programmers#, secretaries and highly skilled clerical workers#

Surplus Occupations: *factory workers#, laborers#*

NORTHEASTERN MINNESOTA

Shortage Occupations: none

Surplus Occupations: *entry level managers#, teachers#, social workers#, office clerks#, bookkeepers#, sales clerks#, waiters/waitresses#, cooks#, maids#, food production workers#, welders#, pipefitters#, heavy equipment operators#, maintenance mechanics, auto mechanics#, truck drivers#, carpenters#, bricklayers#, painters#, electricians, millwrights#, mining workers#, construction and general laborers#*

NORTHWESTERN MINNESOTA

Shortage Occupations: engineers, electronic technicians

Surplus Occupations: *production and factory workers#, printing occupations*

SOUTHERN MINNESOTA

Shortage Occupations: commissioned sales persons#, registered nurses#, licensed practical nurses#

Surplus Occupations: *entry level office clerks, factory workers#, general and unskilled laborers#, almost all other occupational classifications are well represented in the active applicant files#*

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[1] Shortage occupations are those that are difficult to fill or go unfilled due to the lack of qualified applicants. Surplus occupations are those in which the number of qualified applicants greatly exceeds the number of openings.

This occupation has been listed as a shortage or surplus occupation in at least two out of the last three quarters of the Review.

Feature Article

NEW DATA SYSTEMS TO IMPROVE DECISION-MAKING IN EMPLOYMENT, AREA DEVELOPMENT, AND JOB TRAINING PROGRAMS

By Karl A. Fox*

I. Introduction

The Job Training Partnership Act of 1982 (JTPA) replaces CETA, the Comprehensive Employment and Training Act of 1973. The new act requires state governors to delineate service delivery areas (SDAs) which approximate labor market areas and to appoint a Private Industry Council (PIC) in each such area to review all proposed training programs and advise on planning for the most effective use of training in the SDA.

The editor invited me take a macro view of the prospects for linking economic development and job training programs under the new act, presumably at the SDA or, at most, the state level. On reflection, it seems to me that this linkage focuses too narrowly on efforts to attract "footloose" establishments to one state or area without significantly increasing the level of employment nationally. The various techniques used in interstate competition for "new industry" are already widely known.

Meanwhile, much greater opportunities for high employment and area development are being ignored because we have lacked a conceptual framework within which to recognize and discuss them and a data system with which to measure their changes over time. In these respects, we are as ill-prepared now to deal with the socioeconomic problems of the 1980s as we were in 1929 to deal with the strictly economic surprises we encountered then.

In 1929, when the United States and many other countries began their slides into a disastrous depression, we had no current measures of national income, employment, and unemployment and (therefore) no experience in interpreting their fluctuations. Without such experience, we had no empirical basis for predicting income. And, without the current statistics, we had no yardsticks by which to know conclusively whether things were getting better or worse. When these yardsticks were constructed, we found that unemployment had risen from 3 percent in 1929 to 25 percent in 1933 and that disposable income had decreased by 45 percent in money, and 26 percent in real, terms!

The data, concepts, and empirical relationships that we should have had in or before 1929 to avert disaster came forward with a rush in the late 1930s with Kuznets's (1937) time series on the national income and its components, Keynes's (1936) general theory of business cycles, Leontief's (1936) model of interindustry relations, and Tinbergen's (1939) dynamic model of the U.S. economy. Collectively, these developments led to tremendous improvements in data systems relating to the economy--improvements some of which were still in process through the 1970s. Our current data systems are well-adapted for discussing the economic problems of the 1930s, 1940s, and 1950s, but they are not adequate for addressing the full range of socioeconomic issues that confront us now. For this we need another major wave of innovations comparable to that of the late 1930s.

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In Sections III through VI, I propose a new conceptual framework and data systems which should enable us to "surround" and better comprehend a wide range of socioeconomic problems, including those of full employment and area development. I want to look at these in the context of an SDA which coincides with a labor market area containing (for specificity) about 500,000 residents; the special features of such an area are discussed in Section II, along with preliminary comments on data needs.

Section VII recounts some personal observations of the benefits of full employment during 1942-44 and cites evidence of similar benefits from "full participation" in schools and other organizations. Section VIII outlines procedures for getting started on the proposed new data system.

II. Special Features of an SDA which Coincides with a Labor Market Area, and Preliminary Comments on Data Needs

Figure I shows the SDAs (service delivery areas) in Iowa which have been designated under JTPA. Most of them approximate the home-to-work commuting fields or functional economic areas (FEAs) which I delineated in the early 1960s, each centered on a city of 30,000 population or more. Some of these FEAs extend across state lines, and some counties occupy gaps between FEAs, too far for regular commuting to any such city. To deal with these situations, the Governor of Iowa in 1967 or 1968 delineated the state into 16 multicounty areas which have been used as a basis for field operations by several state agencies. Pragmatic modifications have been made as needed. The 16 SDAs designated under JTPA conform quite closely to the standard delineations and also to the district boundaries of Iowa's 16 Area Community Colleges and Area Vocational Schools. Several SDAs are co-extensive with FEAs, which will be referred to interchangeably as labor market areas.

Since an FEA approximates a home-to-work commuting field, it contains (nearly) all the jobs immediately available to FEA residents and (nearly) all the workers immediately available for FEA jobs. As trips to schools, shopping centers, churches, and other facilities are generally shorter than the journey to work, residents of the FEA spend nearly all of their time in a given year within its boundaries. Nearly all of their face-to-face contracts are with other residents of the area, and nearly all of their social as well as economic roles are performed in it. So far as movements of people during a year are concerned, the area approximates a closed system--a relatively stable economic and social community.

Under JTPA, a broad range of training needs could be addressed in such an area, including those of dislocated workers, economically disadvantaged persons, workers whose jobs have been or will be eliminated, and employed workers seeking to upgrade their skills. Programs could also be conducted for youths, older workers, and the physically handicapped. These programs involve interventions in a social system for which we have neither coherent concepts nor coherent data. They are intended to make residents of the area better off (as are many public and private activities going on simultaneously), but we do not have systematic measures of what "better off" means. If employment in the area increases, we may not be sure of the relative importance of its various possible causes, and we have no way of tracing its social, in addition to its economic, repercussions.

As a matter of fact, great strides have been made since the mid-1960s in conceptualizing and implementing social and demographic data systems, demographic accounts and models, time-use surveys, and time-based social accounts. The latter two approaches combine economic and noneconomic activities. Examples are given in Juster and Land (editors, 1981). The social-indicators movement reached a new level of maturity and consensus with publication of *The OECD List of Social Indicators* (1982), which is recommended for implementation *by its member countries* (Australia, Canada, Japan, New Zealand, the United States, and 19 countries of western and southern Europe) as their circumstances permit. All but one or two of the 33 OECD indicators are objective (based on hard, or potentially hard, data), and most of them are based on established data systems of high quality. 1/

Thus, the groundwork has been laid for a new synthesis of data relating to economic and noneconomic activities. Recently published data on stocks of physical capital and consumer durable goods will be important in this synthesis. Concepts from the young discipline of ecological psychology (36 years old and counting) will permit us to classify noneconomic organizations into categories very similar to SIC industries and unpaid roles into categories very similar to occupations in the *Dictionary of Occupational Titles.*

One feature of the synthesis would be a set of time-use accounts showing for each population subgroup in an area (e.g., white males aged 25-34) the current allocation of its total time between gainful employment and various other categories of activities. Given such an accounts system, we would see that if time spent in gainful employment decreased by a million hours, time spent in the other activities would conversely increase by that amount. We would be forced to recognize that earning a living is only a part of living a life and that all activities in which people engage voluntarily have some value to them. If such data were developed in the form of time series, we should soon become much more sophisticated in evaluating the social consequences of ostensibly economic policies and *vice versa.*

III. Measures of Socioeconomic Development and Individual Well-Being: The OECD List of Social Indicators (1982)

The OECD List of Social Indicators, published in 1982, resulted from twelve years of cooperative research by statisticians from the United States and 23 other countries (United Kingdom, France, West Germany and others) which are much like us in terms of social, economic, and political institutions, standards of living, and cultural values. These indicators are designed to measure trends in individual well-being over time in any such county; they could be developed and used for these purposes in individual SDAs or labor market areas as well as at the national level.

The 33 OECD indicators relate to eight major social concerns: 1) health; 2) education and learning; 3) employment and quality of working life; 4) time and leisure; 5) command over goods and services; 6) physical environment (housing conditions, accessibility to services, exposure to air pollution and noise); 7) social environment; 8) and personal safety. Several of these indicators are already collected and published in the United States, and the methods and standards for collecting most of the others are well-known. Several indicators would be disaggregated by standard industrial, occupational and educational classifications.

1/ The complete list of indicators are available from the author.

Directly and indirectly, improved performance levels on most indicators in an SDA would require increased resources, increased efficiency, or both. However, a successful full employment policy would not only reduce the unemployment rate (its most obvious target) but would reduce the amount of involuntary part-time work; reduce the number of discouraged workers; reduce the numbers of residents suffering (a) material deprivation and (b) low income; reduce the suicide rate; reduce the numbers of fatal injuries and other serious injuries associated with crime; and reduce fears for personal safety. We have enumerated here nine of the 33 indicators. Full employment (as against slack employment) would almost certainly improve three other indicators relating to housing conditions and, depending upon the output mix emphasized, a number of indicators under the rubrics of health, education, time and leisure, physical environment, and command over goods and services.

In this framework, socioeconomic development and changes in the well-being of SDA residents would be measured by changes in the 33 indicators. The relative weights assigned to different indicators would have to be determined by the area's residents through representative or consultative processes.

Changes in the indicator levels achieved would be outputs of both economic and noneconomic activities. Achievements in education and learning require much more time (in total) from students than from teachers; achievements in life expectancy and health require much more time and effort (in total) from members of the general population than from doctors. All uses of time by all members of the area's population would be reflected in this array of measures of individual well-being. The indicator levels would be produced either as main products or by-products of the various uses of time.

IV. Measures of the Use of Time

Hence, to understand how socioeconomic development in an area might be advanced, we would need estimates of the allocations of time of each relevant population subgroup (defined by combinations of age, sex, and other attributes) among major categories of activities. The four broad categories suggested by OECD are (1) necessary time: sleep, meals, personal hygiene and care; (2) contracted time: paid work, work of family helpers, regular schooling and occupational training (including associated travel time); (3) committed time: house care, care of children, shopping, care and maintenance of possessions, etc. (including associated travel time); and (4) free time: time left in 24 hours after subtracting the other three types of time use.

Illustrative categories of free time activities would include (a) activities involving physical effort: all sports, exercises, walking, cycling, etc. (when chosen as free time activities); (b) creative or artistic activities involving self-expression: art, drama, etc.; (c) cultural and educational activities; and (d) organizational activities: local civic responsibilities and active participation in religious events and in clubs and associations. The categories are not exhaustive.

A comprehensive set of such estimates for the various population subgroups in an area would yield a time-allocation matrix with time-uses as columns and population subgroups as rows; the elements would add up to 500,000 person-years or its equivalent in person-hours in the hypothetical labor market area of our example. The columns could be disaggregated to the level of SIC industries and analogous categories of noneconomic activities; the rows could be disaggregated to the level of DOT (Dictionary of Occupational Titles) occupations for gainful employment and analogous "quasi-occupations" for various types of unpaid roles. Obviously, various levels and principles of aggregation could be used for different purposes.

If similar matrices were available for the U.S. as a whole or for a number of different labor market areas, the time-allocation rows for particular population subgroups could be compared across areas. Differences between percentages of time spent in gainful employment in different areas by apparently identical population subgroups would be subjects for analysis and interpretation and might lead to some revisions in employment targets and policies in any given area.

V. Measures of Stocks of Physical Capital and Consumer Durable Goods

Nearly all uses of time require physical capital; many require consumer durable goods. As of 1979, the gross value of these stocks (i.e., their value if built or manufactured new) was equivalent to four years' GNP! This figure includes civilian stocks only. The Bureau of Economic Analysis has performed a major service in developing and publishing consistent estimates of such stocks at the national level, annually from 1925 through 1979.

My very rough calculations, from 1979 estimates, suggest that industrial buildings and manufacturing equipment constitute about 10 percent of the total value of all physical capital and consumer durables, compared with 28 percent for residential structures, 4.5 percent for commercial buildings, 3.5 percent for educational, 1.4 percent for hospital and institutional, 1.2 percent for state and local government buildings (except schools and hospitals), and 0.7 percent for religious buildings. These last five categories add up to 11.3 percent of total stocks. Like the residential structures, these buildings would be used almost exclusively by residents of the same labor market area in which they were located. There are also heavy investments in public utilities, sidewalks, streets, and highways, and in automobiles and other consumer durables.

Socioeconomic development in a labor market area depends partly on the efficient use and augmentation of these various types of capital. To understand how improvements in the various indicators might be produced, area residents should have data showing how the different types of physical capital and consumer durables are allocated among the different categories of time use (i.e., the different columns of the area's time-allocation matrix).

VI. Measures of Social (as Well as Economic) Opportunities and Participation

Most economists are completely unaware of the social importance of responsible but unpaid roles. The only systematic data I know of on this subject were collected by Roger G. Barker and his associates: (an example of their data is shown in Table 1). All the "performing roles" in private enterprises and most of those in government-sponsored activities consisted of gainful employment; nearly all the roles sponsored by churches and voluntary associations and most of those sponsored by schools were unpaid. The last three types of organizations provided 87 percent of the total number of responsible roles available in the community during 1963-64! These roles were particularly important to the personal development of children and to the continuing involvement of older persons in community affairs.

Table 1. Person-Hours of Occupancy Time and Numbers of Performing Roles by Town Residents in Specified Types of Organizations, Midwest, Kansas, 1963-64

Type of Organization	Number of behavior settings	Person-hours of occupancy time	Number of performing roles
Private enterprises	132	531,555 1/	439
Government agencies and public facilities	114	186,896 2/	453
Schools	233	310,516 3/	2,149
Churches	193	33,173	1,289
Voluntary associations	212	62,994	2,312
Subtotal, all nonhousehold	884	1,125,134	6,642
Out-commuting and other activities outside the town limits	---	364,536 to 546,804 4/	---
Households	---	5,618,781 to 5,801,049 5/	-----
Total living-time, 830 town residents		7,290,720 6/	

Source: Figures for nonhousehold organizations compiled from various tables in Roger G. Barker and Phil Schoggen, *Qualities of Community Life* (San Francisco: Jossey-Bass, 1973). Out-Commuting and household figures estimated by Karl Fox.

1/ Includes time of customers, clients and others as well as proprietors and employees.

2/ Includes 87,376 hours spent on the town's public streets and sidewalks. Also, as a county seat town, Midwest had an unusually large array of government offices relative to its own population.

3/ Includes time of spectators at various athletic and cultural events as well as classroom time of students and teachers.

4/ Estimated to 5 to 7.5 percent of total living-time. Barker estimated this component at 5 percent in 1951-52, but it was probably somewhat larger in 1963-64.

5/ Residual.

6/ The survey year included February 29, 1964; hence, 366 days or 8784 person-hours for each town resident.

Collection of information about the number and distribution of opportunities for participation in socially respectd, responsible, and rewarding roles other than gainful employment would have to be initiated on a voluntary basis by community organizations within a labor market area or, more likely, as a matter of self-study by particular communities. Enlargement of such opportunities and changes in their distribution among population subgroups would depend on actions by individual schools, school districts, churches, voluntary associations, and local governments.

Even scattered information about the numbers and distributions of responsible social roles in various communities and organizations would make us more sensitive to the existence of social deprivation even among subgroups whose economic needs are reasonably well met. Full employment in an area's economy has its analog in "full opportunity" and "full participation" in its community organizations. Let us consider the essence of this observation.

VII. The Effects of Full Employment and "Full Participation" on Individual Well-Being and Personal Development

Barker and Gump (1964) found that students in small high schools were involved in many more performing roles per capita than students in large schools; most students in large schools found themselves in the position of spectators watching a few highly trained specialists perform. Barker and Gump concluded that students in small high schools benefited substantially in terms of self-confidence, initiative, responsibility, and feeling of personal worth from the fact that the small schools' activities were "undermanned" relative to those of the large ones.

To say that the *activities* were undermanned is to say that the *students* in small high schools were fully employed; they were needed to carry out the schools' agenda. Similarly, many elderly residents of Midwest, Kansas, performed responsible roles in its small churches; in large suburban churches most of them would have been simply loyal, but passive members. Robert Bechtel (1983), in a recent address on "Ubiquitous Undermanning," cited several examples in which apparent understaffing (in remote military bases, in psychiatric hospitals, and other situations) had similar positive effects on the persons involved.

During the transition from depression to full employment in the United States between 1939 and 1944, some remarkable transformations occurred in the economic situations, personalities, and prestige of large groups of Americans who were "economically disadvantaged" throughout the 1930s. The prime source of their disadvantages is clearly shown in Table 2, which records annual unemployment percentages from 1929 to 1946.

Table 2. Unemployment in the United States, 1929-1946

Year	Percentage Unemployed[1]	Year	Percentage Unemployed
1929	3.2	1938	19.0
1930	8.7	1939	17.2
1931	15.9	1940	14.6
1932	23.6	1941	9.9
1933	24.9	1942	4.7
1934	21.7	1943	1.9
1935	20.1	1944	1.2
1936	16.9	1945	1.9
1937	14.3	1946	3.9

Source: Employment and Earnings 19 (February 1973), Table A-1, P. 27.

[1] Unemployed as percentage of civilian labor force 14 years and over.

Reproduced from Table 1.1, page 9, in Helen Ginsburg Full Employment and Public Policy: The United States and Sweden (Lexington, Mass.: D.C. Heath and Company, 1983).

In California, the middle and late 1930s were years of the "Okies" and "Arkies" -- white farm families displaced from their land in the Southern Plains to become migratory workers in the Central Valley, memorialized by John Steinbeck in his 1939 novel, Grapes of Wrath. Nationally, unemployment ranged from 14 percent to 25 percent during an entire decade. As a young social worker in Salt Lake County (Utah) in 1940, I saw evidences of the beginnings of a white "underclass" without labor market contracts -- children of AFDC mothers who didn't know anyone who had a job and could introduce them to a foreman.

After two years of graduate work at Berkeley, I witnessed the full employment phase as a young economist in the Western Regional Office of the War Food Administration (San Francisco). Farm wage rates had tripled in California's Central Valley from October 1941 to October 1942; the most visible causes were shipyards near San Francisco and aircraft factories near Los Angeles. There was no more talk of Okies and Arkies, and in 1943 a popular song proclaimed that "the hillbillies are Mountain Williams now!" Our neighborhood was not elegant. The movies were in Spanish and the young men wore "Zoot suits", but everybody was working, the Saturday night mood was festive, and the streets were safe. A Polish lady, Grandma Nich, even came out of retirement to help us with housework and child care. The "economically disadvantaged" were conspicuous by their absence; an indication of what full employment and full participation has on individual well-being and development.

VIII. Getting Started on the New Data System

The data systems I propose would combine ideas from several different research traditions within a new framework. This framework calls for the arrangement and articulation of much data that is already being published; it constitutes an additional use of such data which will not interfere with any existing use.

The 1970 Census of Population published a great deal of data on employment by industry and occupation and by age, sex, education, and other categories. Very detailed cross-classifications are available for metropolitan areas of 250,000 population or more. For less populous areas, multiple regression and other techniques could be used to estimate "typical" or "implicit" cross-classifications of employment by occupation and industry for towns and counties of different population sizes. Estimates of this type could be aggregated to correspond to the delineations of SDAs or labor market areas.

We know that patterns of employment by occupation and industry in the retail trade, service, school, and local government sectors tend to be much the same in different towns in the same population size class. The various economic censuses, the census of governments, and published data on school enrollments provide information on these sectors for individual towns and counties, and multiple regression or other techniques could be used to estimate "typical" or "expected" values of employment-occupation-industry categories for towns with any given set of published characteristics.

Thus, those elements of a complete time-use matrix which involve gainful employment and school enrollment could be estimated approximately for almost any town or county as of 1970. Other categories of time-use by adults could be approximated on the basis of a survey made by the Survey Research Center (University of Michigan) in 1975-76; strictly speaking, the SRC results are national averages, but they could be used as inital estimates for any subnational area. Time allocations among major SRC categories such as night sleep, housework, child care, shopping, and the like are probably much the same for groups of adults of specified age, sex and marital statuses in most areas. Estimates of time-use, other than school attendance, by children and teenagers could be roughed in on the basis of personal observation or whatever relevant studies may be available.

The resulting time-use matrix extimated for any particular town or area would be analogous to a ready-made suit; if additional tailoring were required, it would have to be done locally. For a county of 10,000 population, the estimated matrix would allocate 10,000 person-years among time-uses and population subgroups. Time-uses involving gainful employment would be further disaggregated to the level of SIC industries: and time spent by each population subgroup working in an SIC industry would be disaggregated (prorated) to the level of DOT occupations. (SIC industries and DOT occupations could be disaggregated to different level for different purposes).

Other rough-and-ready methods would have to be used to adapt national estimates of stocks of buildings, other structures, equipment, and consumer durables to the perceived situation in any particular area to allocate these stock estimates among the various categories of time-use in that area. Further crude carpentry would be involved (at the outset) in estimating or assembling 1970 values of the various OECD indicators applicable to the area and of coefficients expressing changes in indicator levels as functions of changes in the amount of time and/or physical capital devoted to each SIC industry or other category of time use.

Other data problems would involve the selection of published time series with which to approximate the movements of the variables involved in the 1970 cross-section for any area on a yearly basis from 1970 to 1979. An independent cross-section estimate could presumably be based on 1980 census and other data.

In the further elaboration of time-use estimates, I believe that Roger Barker's concept of "behavior settings" will prove particularly useful. Explanations of this concept and its uses are given in Fox and Ghosh (1980), Wicker (1979), Barker and Schoggen (1973), and Barker and Associates (1978).

The proposed rough-and ready 1970 matrices for particular towns, counties, and labor market areas could serve as starting-points for independent experimentation, modification and development of the new data systems by research groups in many different states. These data systems are user-oriented rather than discipline-oriented. Regional scientists and others who work in multidisciplinary contexts or as members of multidisciplinary teams are perhaps best equipped for their development, at least during the early, exploratory years. In advance of any endorsement at the national level, many different approaches to data collection, classification, and policy analysis could be tried in the various states and areas--some of them as aids to self-studies initiated by local communities.

After several years of such varied explorations, we should be able to design employment, development, job training and other programs at the SDA level with considerable confidence--and to specify the ongoing data systems needed to justify that confidence.

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Brief Analysis Of Economic Conditions

THE NATIONAL AND STATE ECONOMIES AT MID-YEAR

By B. Boyle

Nation

Although there were some declines in a few of the economic indicators in June and July, key barometers of economic activity showed that the recovery that began in December was becoming very robust. The National Bureau of Economic Research, the official designator of peaks and troughs of recessions, has declared that the recent recession ended in November 1982.

The best evidence that the upturn was becoming very strong was the 9.2 percent jump in real Gross National Product for the second quarter. Also, there was a sharp drop in the unemployment rate in July together with further large gains in total and nonfarm payroll employment. The seasonally adjusted unemployment rate fell below 10 percent for the first time since July 1982, while both seasonally adjusted total employment and nonfarm payroll employment rose by about a half million each in July. Since December, payroll employment has risen by 1.7 million. Meanwhile, industrial production climbed for the eighth consecutive month in July. The July gain of 1.8 percent was the biggest since a 1.9 percent advance in April and was due to sharp rises in the production of steel and automobiles.

Despite strength represented by the indicators noted above, retail sales and new orders for durable goods fell in July for the first time since February while housing starts declined for the second straight month in July. Also, personal income and consumer spending grew rather modestly in both June and July. Most economists, however, were not alarmed by these declines and slowdowns, contending that the earlier sharp gains could not be sustained and that a slower rate of growth in the economy would hold down prices and interest rates.

State

Even with some improvement in the unemployment rate and total employment in July, the Minnesota economy is still quite flat compared to that of the Nation. Also, nonagricultural wage and salary employment has yet to show much strength, especially in the cyclically sensitive durable goods manufacturing sector.

The State's seasonally unadjusted unemployment rate which, on average, drops 0.3 of a percentage point between June and July fell by 0.5 of a percentage point this year. However, the July 1983 rate was still somewhat above the year earlier rate. Total employment, also unadjusted, showed some strength in July as it rose by 0.9 percent, much stronger than the average decline of 0.3 percent that occurs between June and July. On the other hand, seasonally adjusted nonfarm payroll employment rose by only 0.1 percent in July, after a fractional decline in June and only a 1.1 percent increase since December. The largest numerical gains in payroll employment since December were in the trade and services industries while the most rapid advances were in mining and construction. In contrast, employment in durable goods manufacturing has increased by only 1,100 or 0.6 percent since December.

Other economic indicators for the State in the first quarter and July showed a mixed picture. Both housing permits and retail sales had strong over-the-year gains during the first six months of 1983. However, even though average weekly initial claims for unemployment benefits have declined almost steadily during 1983, a significant part of their decline may have been due to unemployed persons losing their eligibility for benefits.

Forecasts

FORECASTS OF GNP AND MINNESOTA PAYROLL EMPLOYMENT

By C. Cline

The table below presents forecasted values for the next eight quarters, beginning with the third quarter, 1983. These forecasts include revised data for the second quarter for all series as well as revised estimates of real GNP for all quarters beginning with the first quarter of 1980 as imputs into these forecasts.

Actual estimates for the second quarter are also presented. Regular readers can compare these with the forecasted values for the same quarter published in the August issue of the Review.

In the last issue we suggested discounting our forecasts since they were quite optimistic compared with previous recoveries. However, the economy expanded at a rate faster than that forecast. The annual rate of growth of real GNP, based on second quarter performance, was initially set at 8.7 percent and then revised upward by BEA. We also underforecast total wage and salary employment as well as that in the Construction, Manufacturing, and Transportation, Communications, and Public Utilities Industries. The time period during which total Minnesota wage and salary employment is forecasted to attain its previous high, that of Winter, 1979, advanced. Based on the present forecasts we expect total employment to regain a value of 1,803,000 sometime during the later second or early third quarter of 1984.

Quarter	Real GNP (Billions of 1972 Dollars)	MINNESOTA PAYROLL EMPLOYMENT, BY QUARTER (In Thousands)								
		Total Nonagricultural Wage & Salary	Mining	Contract Construction	Manufacturing	Transportation, Communications, & Public Utilities	Retail and Wholesale Trade	Finance, Insurance, & Real Estate	Services	Government
CURRENT										
1983-II	1523.40	1702.37	9.53	58.02	334.68	93.59	429.93	98.26	387.96	290.42
FORECAST										
1983-III	1555.49	1715.58	10.56	68.48	348.00	92.81	433.78	99.60	392.20	265.97
1983-IV	1586.92	1744.68	10.88	65.37	342.70	96.47	439.69	99.31	397.13	286.72
1984-I	1616.31	1716.29	10.71	50.14	340.75	95.02	429.62	99.69	395.10	287.96
1984-II	1644.99	1788.55	12.27	63.99	350.94	97.16	451.87	102.05	403.94	289.03
1984-III	1673.19	1820.82	12.60	76.39	370.67	97.90	456.19	103.88	415.32	267.08
1984-IV	1699.35	1859.14	12.04	73.26	368.96	101.75	465.32	104.00	422.86	286.93
1985-I	1723.65	1828.50	11.32	55.89	363.06	99.94	456.39	104.48	421.55	288.93
1985-II	1746.62	1905.00	12.64	70.97	379.12	102.50	479.77	107.02	438.85	289.47

Notes

1. These forecasts are produced using the Vector Autoregression model developed for Research by Rao Aiyagari.
2. The concept of employment forecasted is that of Nonagricultural Wage and Salary employment. The count represents the number of jobs held since the data is generated from a survey of employer payroll records. Groups included in labor force employment, but excluded here are the self employed, domestics, unpaid family workers, employees of nonprofit institutions, and those government workers not covered by unemployment insurance.
3. Employment forecasts are seasonally unadjusted values. Real GNP is seasonally adjusted.
4. Forecasts of major industry employment do not sum to the forecast of total wage and salary employment. This is due to random error in the forecasted values.
5. There is great diversity in the accuracy of our forecasts among the major industry division. More information on their accuracy can be obtained from the author on request.

S-1

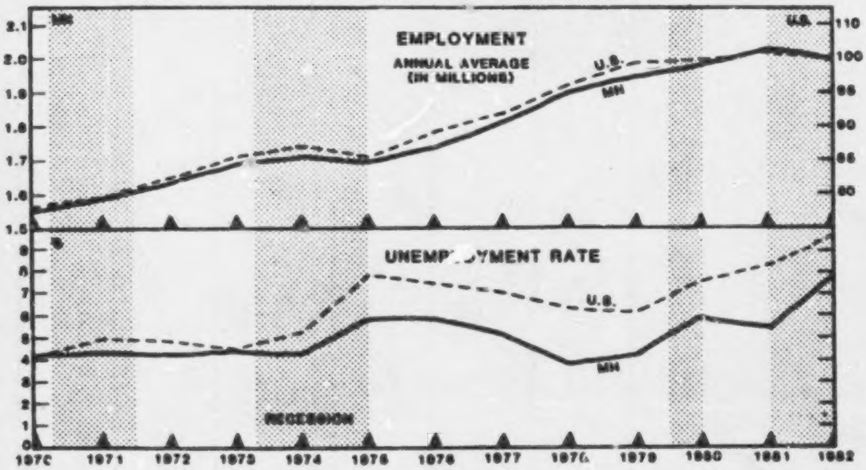
Labor Force Statistics

Labor Force Estimates	MINNESOTA (Numbers in '000's)			UNITED STATES (Numbers in '000,000's)		
	July 1983	Change From		July 1983	Change From	
		Last Mo.	Year Ago		Last Mo.	Year Ago
Civilian Labor Force	2202.4	6.0	-18.1	114.0	0.6	1.5
Employed	2037.5	17.8	-5.4	103.3	1.5	1.8
Unemployed	164.9	-11.8	-12.7	10.7	-0.9	-0.3
Unemployment Rate						
Actual	7.5	-0.5	-0.5	9.4	-0.8	-0.4
Seasonally Adjusted	n.a	n.a	n.a	9.5	-0.5	-0.6

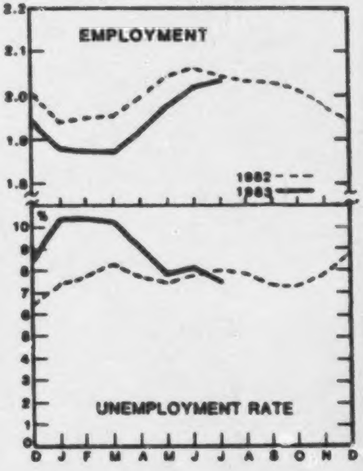
Historical Labor Force Series

Year	Minnesota (Annual Average in '000's)				United States (Annual Average in '000,000's)			
	Labor Force	Employment	Unemployment		Labor Force	Employment	Unemployment	
			Number	Rate			Number	Rate
1970	1625.0	1557.0	68.0	4.2	82.8	78.7	4.1	4.9
1971	1665.0	1593.0	73.0	4.4	84.4	79.4	5.0	5.9
1972	1709.0	1635.0	73.0	4.3	87.0	82.2	4.9	5.6
1973	1774.0	1694.0	80.0	4.5	89.4	85.1	4.4	4.9
1974	1779.0	1701.0	77.0	4.3	91.9	86.8	5.2	5.6
1975	1804.0	1697.0	107.0	5.9	93.8	85.8	7.9	8.5
1976	1849.0	1739.0	109.0	5.9	96.2	88.8	7.4	7.7
1977	1907.0	1809.0	97.0	5.1	99.0	92.0	7.0	7.1
1978	1979.0	1903.0	75.0	3.8	102.3	96.0	6.2	6.1
1979	2038.0	1953.0	85.0	4.2	105.0	98.8	6.1	5.8
1980	2109.0	1984.0	125.0	5.9	106.9	99.3	7.6	7.1
1981	2153.0	2034.0	119.0	5.5	108.7	100.4	8.3	7.6
1982	2166.0	1997.0	169.0	7.8	110.2	99.5	10.7	9.7

MN and the U.S., Employment & Unemployment Rate



MN, 1982 and 1983



S-2

Labor Market Conditions

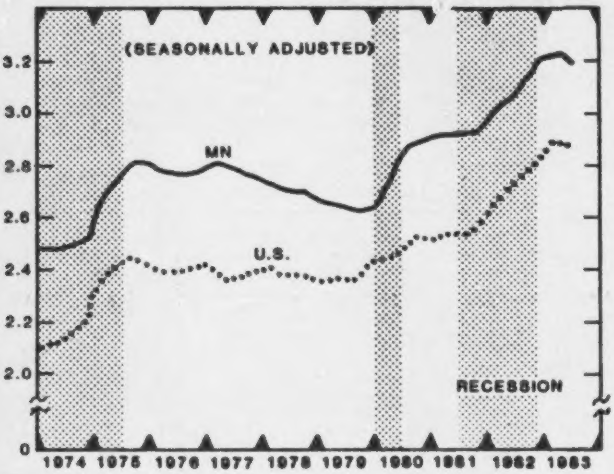
The table and graphs in this section describe the behavior of the market for labor services in terms of its quantity, price, and supply. The quantity of labor services, which is the number of employed persons, is classified by industry. The price of labor services is roughly indicated by the industry wage. Unemployment estimates provide a qualified measure of excess labor supply. The degree to which persons participate in the labor market and the effectiveness of the market in utilizing labor services are indicated by Labor Force Estimates and by Other Rates of Labor Utilization.

Labor Force And Establishment Data	MINNESOTA (Numbers in '000's)			UNITED STATES (Numbers in '000's)		
	II Qtr 1983	Percent Change From		II Qtr 1983	Percent Change From	
		Last Qtr	Year Ago		Last Qtr	Year Ago
LABOR FORCE ESTIMATES						
Total Labor Force	2153.1	2.7	-2.4	111189	1.3	1.0
Employment	1974.2	5.0	-3.0	100065	2.6	0.2
Nonagriculatural	n.a	n.a	n.a	96058	2.0	0.2
Agriculatural	n.a	n.a	n.a	3558	21.9	0.9
Unemployment	178.9	-17.1	5.8	11123	-9.3	8.3
By Reason - New Reentrants-%*	n.a	n.a	n.a	33.3	-2.5	-1.2
By Reason - Quit-%*	n.a	n.a	n.a	7.1	-6.6	-14.5
By Reason - Lost-%*	n.a	n.a	n.a	59.5	-0.7	2.6
Unemployment Rates						
Actual	8.3	-19.4	7.8	10.0	-10.7	7.5
Seasonally Adjusted	n.a	n.a	n.a	10.1	-1.9	7.4
OTHER RATES OF LABOR UTILIZATION						
Participation Rt (Labor Force/Population 16+)	n.a	n.a	n.a	63.9	0.3	-0.2
Full Employment Deficit - Percent of Workers1/	4.3	6.3	3.7	6.0	7.2	5.3
Manpower Utilization Rate2/	81.6	0.6	0.2	79.9	1.0	-0.4
NONAGRICULTURAL WAGE AND SALARIED POSITIONS						
Employment*	1692.7	0.4	-1.5	89426	0.7	-0.6
Mining	9.5	15.9	-19.5	1001	-1.8	-15.0
Construction	58.3	4.3	-3.2	3865	1.3	-2.1
Manufacturing	336.6	0.2	-3.7	18474	1.2	-3.0
Durables	198.8	0.5	-4.8	10767	1.5	-4.5
Nondurables	137.8	-0.2	-1.9	7707	0.8	-1.0
Trans., Comm., & Public Utilities	93.3	-0.1	-1.1	4992	0.5	-2.3
Trade	428.2	0.7	-1.1	20380	0.2	-0.3
Fin., Ins., & Real Estate	98.0	-0.2	-0.4	5435	1.0	1.9
Services	385.6	0.5	1.4	19585	1.6	3.0
Government	283.2	-0.6	-2.5	15694	-0.3	-1.0
Average Weekly Hours*						
Mining	31.7	-10.7	-15.0	42.2	0.7	-1.4
Construction	35.9	-2.4	-2.7	37.4	3.3	0.5
Manufacturing	39.1	-1.0	-0.5	40.0	1.3	2.3
Durables	39.8	-1.0	-0.7	40.5	1.5	2.5
Nondurables	38.3	-0.8	0.3	39.4	1.3	2.3
Trans., Comm., & Public Utilities	38.1	-0.3	-1.3	38.9	0.5	-0.5
Trade	30.0	0.7	2.4	31.9	0.6	0.0
Fin., Ins., & Real Estate	n.a	n.a	n.a	36.1	-0.3	-0.3
Services	n.a	n.a	n.a	32.8	0.3	0.6
Average Hourly Wage						
Mining	11.89	-8.3	-11.2	11.27	0.4	5.6
Construction	14.67	-1.7	2.4	11.80	-1.4	3.1
Manufacturing	9.54	0.6	5.1	8.79	0.7	3.9
Durables	9.56	1.1	6.2	9.34	0.5	3.7
Nondurables	9.51	0.0	3.6	8.03	0.5	4.7
Trans., Comm., & Public Utilities	10.97	3.1	7.3	10.72	0.3	5.4
Trade	7.26	0.0	5.7	6.46	0.5	4.5
Fin., Ins., & Real Estate	n.a	n.a	n.a	7.26	0.8	8.4
Services	n.a	n.a	n.a	7.20	0.3	5.4
Estimates of Labor Turnover (Mfg. Only)		Estimates of Labor Turnover have been discontinued as of January 1, 1982.				

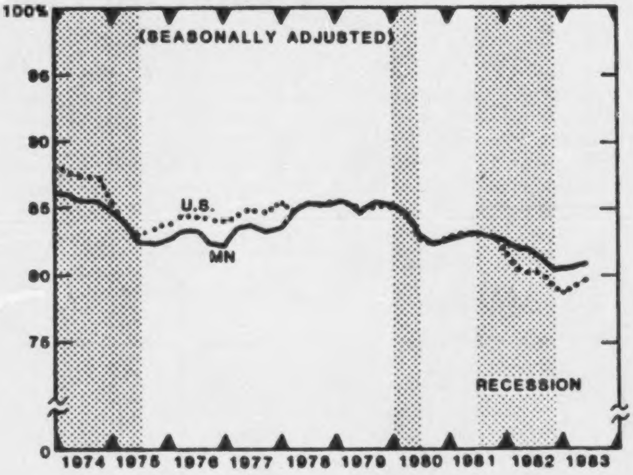
a/ Values are numerical values, not percent changes.

Labor Market Conditions

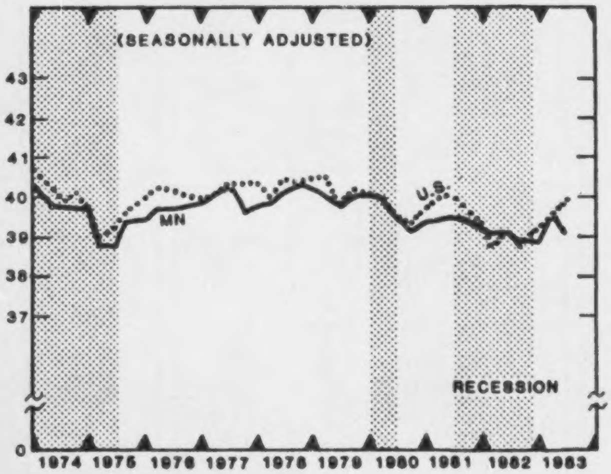
Ratio of Service to Goods Producing Jobs



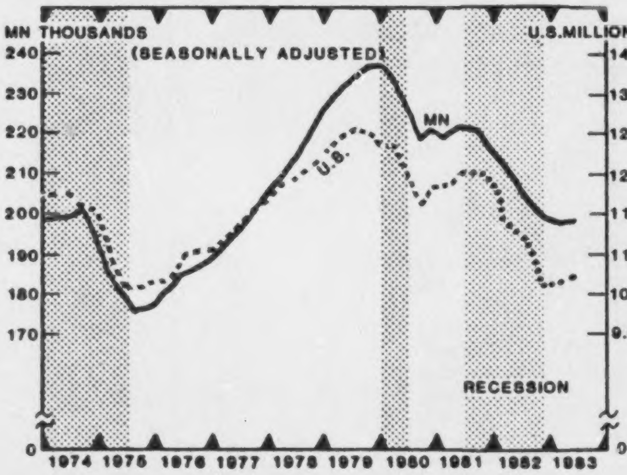
Manpower Utilization Rate



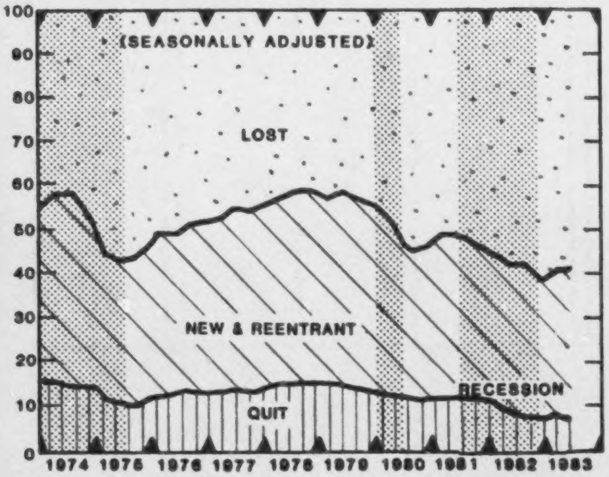
Average Weekly Hours, Manufacturing



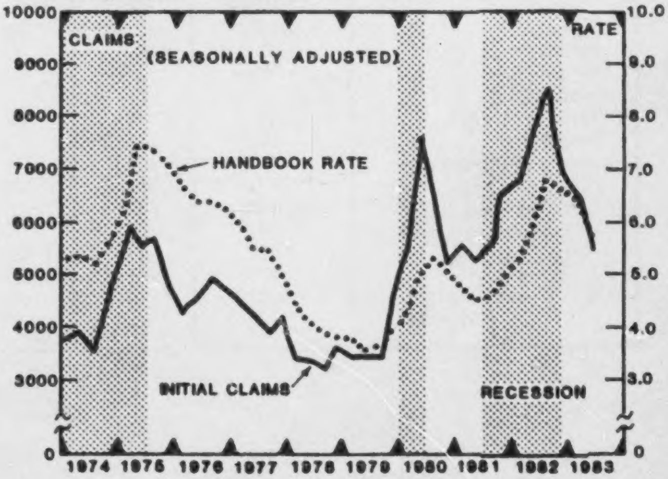
Manufacturing Employment, Durable Goods



U.S. Unemployment: Percent Distribution by Reason



MN Weekly Initial Claims & Handbook Unemployment Rate[1]



Labor Market Conditions

The Table below provides data on persons who file claims for unemployment compensation in Minnesota. Only those claiming benefits from the regular State program are represented, since data on the characteristics of Federal employees and veterans are not available, and data on those receiving benefits from extended programs is reported only when those programs are in effect. If those receiving extended benefits were included they would distort the numerical comparisons over time, but would not substantially change the percentage distributions other than to increase the proportion of long-term unemployed.

Persons Claiming Benefits	Second Quarter 1983			July 1983			Percent Long Term
	Number	Percent Change From		Number	Percent Change From		
		Last Qtr.	Year Ago		Month Ago	Year Ago	
By Age & Sex							
Male	33609	-46.0	-24.2	21199	-11.8	-48.8	27.4
Under 45	25964	-46.7	-27.2	16081	-12.3	-50.8	27.1
Under 25	6581	-51.8	-42.6	3824	-14.7	-55.5	26.7
25-34	12997	-45.2	-22.6	7900	-12.3	-51.7	27.9
35-44	6386	-43.6	-13.8	4357	-10.0	-43.5	26.1
45 and Over	7645	-43.5	-12.0	5118	-10.0	-41.4	28.4
45-54	4234	-45.1	-14.0	2777	-11.4	-43.7	25.2
55 and Over	3411	-41.4	-9.3	2341	-8.2	-38.5	32.1
Female	14723	-25.6	-22.8	13995	-4.0	-37.9	25.3
Under 45	10806	-26.0	-25.4	10179	-4.8	-39.6	24.3
Under 25	2762	-36.5	-36.9	2343	-8.1	-46.4	24.0
25-34	4875	-22.9	-21.7	4621	-5.0	-38.3	25.2
35-44	3169	-19.3	-18.3	3215	-2.0	-35.7	23.2
45 and Over	3917	-24.4	-14.5	3816	-1.7	-32.9	28.2
45-54	2180	-23.9	-16.8	2141	-1.7	-35.1	25.9
55 and Over	1737	-24.9	-11.4	1675	-1.6	-29.7	31.1
By Industry	48332	-41.1	-23.8	35194	-8.8	-45.0	26.6
Ag., For., Fish.	709	-67.9	-9.0	339	-5.8	-27.7	19.4
Mining	1548	-65.2	-59.1	1272	19.1	-84.2	3.0
Construction	9702	-55.8	-22.5	3635	-19.4	-42.3	24.9
Manufacturing	14040	-38.5	-33.6	9407	-18.0	-55.2	30.0
Pub. Utilities	2491	-29.0	-23.0	1965	-7.9	-27.3	30.4
Wholesale Trade	3518	-34.3	-11.9	2641	-8.0	-31.0	32.4
Retail Trade	6245	-27.7	-5.0	5382	-3.3	-13.1	35.5
Fin., Ins., Real Est.	1172	-20.5	-15.4	1054	-3.2	-22.2	31.6
Services	7433	-20.7	-14.3	8280	-0.3	-35.2	19.3
Public Admin.	714	-51.3	-26.2	612	4.8	-23.6	23.9
Inf. Not Available	760	-4.2	120.9	607	-5.0	25.4	5.4
By Occupation	48332	-41.1	-23.8	35194	-8.8	-45.0	26.6
Prof., Tech., Mgr.	6280	-15.7	-9.0	6940	0.8	-33.2	23.7
Clerical	5220	-20.7	-14.2	5043	0.2	-27.3	30.4
Sales	1965	-23.5	-8.0	1685	-5.4	-21.6	39.1
Services	3458	-30.6	-13.8	3165	-3.1	-26.5	27.3
Farm., For., Fish.	550	-69.4	-15.4	230	-9.4	-25.6	22.4
Processing	2815	-22.5	-24.8	1703	-43.6	-47.9	20.6
Machine Trade	3337	-38.7	-31.3	2264	-12.5	-56.3	31.6
Benchwork	4001	-44.8	-43.4	2870	-7.2	-61.7	23.8
Structural Work	11561	-54.4	-25.3	5090	-17.3	-45.3	25.7
Misc.	8554	-48.7	-30.7	5654	-5.9	-60.8	24.8
Inf. Not Available	591	128.2	241.6	550	7.4	188.0	32.9
By Duration	48332	-41.1	-23.8	35194	-8.8	-45.0	
0-14 Weeks	32892	-49.3	-27.5	25833	-8.1	-48.5	
15+ Weeks (Long-Term)	15440	-9.8	-14.6	9361	-10.8	-32.2	

5-5

Labor Market Conditions

Minnesota Nonagricultural Wage & Salary Employment, Hours, and Earnings

INDUSTRY	EMPLOYMENT 1/ (thousands)			PER CENT CHANGE FROM		PRODUCTION WORKERS' HOURS & EARNINGS					
						Average Weekly Earnings		Average Hourly Earnings		Average Weekly Hours	
	July 1983	June 1983	July 1982	June 1983	July 1982	July 1983	June 1983	July 1983	June 1983	July 1983	June 1983
TOTAL NONAGRICULTURAL	1699.8	1720.8	1699.4	-1.2	0						
MANUFACTURING	340.7	337.7	348.0	0.9	-2.1	375.09	377.67	9.52	9.61	39.4	39.3
Durable Goods	199.1	199.9	205.8	-0.4	-3.3	383.20	387.13	9.58	9.63	40.0	40.2
Furniture, Lumber and Wood	14.2	13.9	14.0	2.0	1.3	393.00	398.58	10.00	10.22	39.3	39.0
Stone, Clay and Glass	8.5	8.4	8.9	0.6	-5.0	369.40	365.77	9.57	9.55	38.6	38.3
Primary Metals	4.7	4.7	5.2	0.9	-9.6	337.81	347.69	8.82	8.78	38.3	39.6
Fabricated Metals	32.7	32.5	32.6	0.8	0.3	433.78	434.25	10.58	10.54	41.0	41.2
Nonelectrical Machinery	76.4	76.4	80.1	-0.1	-4.6	392.62	393.78	9.84	9.82	39.9	40.1
Electrical Machinery	26.1	26.2	26.5	-0.6	-1.6	350.10	350.10	8.56	8.56	40.9	40.9
Transportation Equipment	4.8	5.9	6.0	-19.4	-20.4	354.37	424.56	9.04	10.33	39.2	41.1
Other Durable Goods 2/	31.8	31.7	32.5	0	-2.2	359.39	359.39	9.03	9.03	39.8	39.8
Nondurable Goods	141.6	137.9	142.2	2.7	-0.4	363.44	365.57	9.44	9.57	38.5	38.2
Food and Kindred	48.8	44.7	48.5	9.1	0.7	327.79	332.61	8.47	8.73	38.7	38.1
Textile and Apparel	4.7	4.5	4.9	3.0	-4.5	225.16	223.48	6.22	6.26	36.2	35.7
Paper and Allied	32.6	32.6	32.9	0	-1.0	458.58	456.46	10.64	10.64	43.1	42.9
Printing and Publishing	34.8	35.2	35.5	-1.2	-1.8	355.69	356.04	10.37	10.35	34.3	34.4
Chemical and Petroleum	9.4	9.5	9.2	-0.4	2.7	421.69	424.67	10.73	10.67	39.3	39.8
Rubber and Leather	11.3	11.3	11.2	-0.3	0.6	305.25	302.78	8.14	8.25	37.5	36.7
NONMANUFACTURING	1359.0	1383.1	1351.4	-1.7	0.6						
Mining and Quarrying	10.4	9.8	7.7	5.6	35.1	429.09	428.03	12.19	12.16	35.2	35.2
Metal Mining	8.0	7.6	5.5	5.6	45.6	423.14	423.47	13.06	13.07	32.4	32.4
Construction	69.3	66.0	67.7	4.9	2.3	575.20	555.12	14.38	14.57	40.0	38.1
Building	18.6	17.6	18.2	5.7	2.2	511.29	514.46	13.11	13.61	39.0	37.8
Highway and Heavy	15.2	14.4	13.7	5.6	11.2	555.41	519.58	12.37	12.49	44.9	41.6
Special Trades	35.5	34.1	35.9	4.2	-1.0	618.46	593.29	16.19	16.21	38.2	36.6
Transportation	58.3	60.2	58.8	-3.2	-0.7						
Railroads	13.2	13.4	13.7	-1.5	-3.8	527.85	527.85	11.50	11.50	45.9	45.9
Trucking and Warehousing	22.8	23.3	23.0	-2.2	-1.0	419.48	422.82	11.62	11.68	36.1	36.2
Public Utilities	33.1	33.1	34.4	-0.1	-3.9	490.37	482.69	12.29	12.22	39.9	39.5
Communications	18.9	19.0	19.9	-0.3	-5.0	446.40	445.27	11.33	11.33	39.4	39.3
Elec., Gas and Sanitary	14.1	14.1	14.5	0.1	-2.4	538.94	525.36	13.34	13.20	40.4	39.8
Trade	435.5	436.9	434.2	-0.3	0.3	226.19	222.16	7.32	7.26	30.9	30.6
Retail	322.9	325.0	320.6	-0.6	0.7	178.98	178.01	6.28	6.29	28.5	28.3
General Merchandise	42.8	43.4	44.0	-1.5	-2.7	168.48	172.87	5.85	5.88	28.8	29.4
Food Stores	46.9	46.8	45.7	0.4	2.6	211.10	211.52	7.33	7.37	28.8	28.7
Automotive	34.5	34.7	34.2	-0.5	1.0	271.87	270.62	7.68	7.71	35.4	35.1
Eating and Drinking	109.6	110.5	108.9	-0.8	0.6	109.26	108.81	4.61	4.65	23.7	23.4
Wholesale	112.6	111.9	113.7	0.7	-0.9	388.83	377.12	9.97	9.77	39.0	38.6
F.I.R.E.	98.9	98.9	99.1	0	-0.2						
Finance	47.2	47.1	46.2	0.3	2.2						
Insurance	35.2	35.3	35.9	-0.4	-2.0						
Real Estate	16.5	16.5	17.0	0.1	-3.0						
Service Industries	390.8	390.1	383.2	0.2	2.0						
Hotel and Lodging	22.7	22.4	22.8	1.3	-0.4						
Business Services	58.4	57.9	56.6	0.9	3.3						
Health Services	135.6	135.4	133.2	0.1	1.8						
Private Education	18.5	19.2	18.3	-3.6	1.1						
Soc. Serv., Museums etc.	84.1	83.3	82.3	1.0	2.2						
Government	262.8	288.0	266.2	-8.8	-1.3						
Federal	29.9	30.0	30.5	-0.4	-2.1						
State	62.1	68.3	60.4	-9.0	2.9						
Local	170.7	189.7	175.3	-10.0	-2.6						

1/ Totals may not add because of rounding.
2/ Includes Scientific Instruments and Miscellaneous Industries.

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Labor Market Conditions

Labor Force Data: State, SMSAs, and Counties

Area or County	July 1983 Prelim.		
	Labor Force[1]	Unemp.	Un. Rate
State of Minnesota	2202409	164900	7.5
Metropolitan Areas			
Duluth/Superior (Duluth City Only)	37114	4751	12.8
Fargo/Moorhead (Clay County, MN Only)	28096	2260	8.0
Minneapolis/St. Paul SMSA[2]	1166974	76034	6.5
Rochester SMSA (Olmsted Co.)	60909	3160	5.2
St. Cloud SMSA[3]	79479	6906	8.7
Counties			
Aitkin	5889	848	14.4
Anoka	111343	8066	7.2
Becker	13230	1452	11.0
Beltrami	16443	1346	8.2
Benton	12230	1034	8.5
Big Stone	4248	255	6.0
Blue Earth	29333	1842	6.3
Brown	16414	1103	6.7
Carlton	12040	1409	11.7
Carver	20657	1136	5.5
Cass	11470	1118	9.7
Chippewa	7793	551	7.1
Chisago	14546	997	6.9
Clay	28096	2260	8.0
Clearwater	4274	635	14.9
Cook	2467	249	10.1
Cottonwood	8063	607	7.5
Crow Wing	18203	1799	9.9
Dakota	108834	6552	6.0
Dodge	9288	677	7.3
Douglas	14553	977	6.7
Faribault	11976	693	5.8
Fillmore	13414	875	6.5
Freeborn	18767	1438	7.9
Goodhue	20407	1465	7.2
Grant	3839	210	5.5
Hennepin	530496	34442	6.5
Houston	10599	567	5.3
Hubbard	6350	788	12.4
Isanti	10442	950	9.1
Itasca	18461	2574	13.9
Jackson	8563	561	6.6
Kanabec	5705	648	11.4
Kandiyohi	19191	1346	7.0
Kittson	3872	315	8.1
Koochiching	7625	764	10.0
Lac qui Parle	6416	355	5.5
Lake	4718	1646	34.9
Lake of the Woods	2037	158	7.8
Le Sueur	13655	1079	7.9
Lincoln	4362	202	4.6
Lyon	15541	867	5.6
McLeod	18707	1283	6.9
Mahnomen	3137	309	9.7
Marshall	6956	816	11.7
Martin	14815	976	6.6
Meeker	12166	1155	9.5
Mille Lacs	9351	879	9.4
Morrison	12849	1371	10.7
Mower	18479	1294	7.0
Murray	6911	409	5.9
Nicollet	14989	833	5.6
Nobles	12634	659	5.2
Norman	5134	296	5.8
Olmsted	60909	3160	5.2
Otter Tail	26302	1992	7.6
Pennington	6587	588	8.9
Pine	10373	993	9.6
Pipestone	6064	310	5.1
Polk	16325	1741	10.7
Pope	6139	426	6.9
Ramsey	259613	17341	6.7
Red Lake	2365	330	16.1
Redwood	11499	632	5.5
Renville	12915	1137	8.8
Rice	24047	1657	6.9
Rock	6307	271	4.3
Roseau	6166	481	7.8
St. Louis (Inc. Duluth)	91521	14031	15.3
Scott	24588	1517	6.2
Sherburne	14640	1345	9.2
Sibley	8831	559	6.3
Stearns	52607	4525	8.6
Steele	17355	1208	7.0
Stevens	6224	296	4.8
Swift	7079	606	8.6
Todd	12977	1014	7.8
Traverse	3123	181	5.8
Wabasha	10288	677	6.6
Wadena	5953	653	11.0
Waseca	9543	661	6.9
Washington	63485	3641	5.7
Watonwan	7030	517	7.4
Wilkin	4891	341	7.0
Winona	22742	2048	9.0
Wright	33410	2342	7.0
Yellow Medicine	8479	436	5.1

Technical Notes:

[1] Labor force data is computed according to BLS methodology. The method includes an adjustment to assure that the sum of the substate areas equals the separately estimated State total. This adjustment is Applied to all county and SMSA areas. County and area unemployment was multiplied by an adjustment factor of 1.62 ; employment was multiplied by 1.02 . For a more detailed explanation see the Review of Labor and Economic Conditions, Vol. 4, No. 4, (February 1978 issue), p. 29.

[2] Anoka, Carver, Chisago, Dakota, Hennepin, Ramsey, Scott, Washington, and Wright Counties.

[3] Benton, Sherburne, and Stearns Counties.

Income & Purchasing Power

This section describes how Minnesotans fare with respect to their ability to acquire goods and services needed to meet their needs and wants and how they compare with others in the United States in this respect. Real Per Capita Personal Income measures money income received by all individuals from wages and salaries, dividends, rent, professional and farm income, personal interest payments, and transfer payments, less personal contributions for social security, all adjusted for the price level as indicated by the CPI and for population. The Consumer Price Index (CPI) measures changes in the price of a representative combination of goods and services consumed by urban wage and salary workers relative to 1967. The inverse of the CPI (1/CPI) indicates the value of the dollar; when the CPI increases the value of the dollar falls. The change in the CPI over any period of time divided by the value at the beginning of the period gives the percentage change, or the rate of inflation.

Income And Purchasing Power	MINNESOTA			UNITED STATES		
	II Qtr 1983	Percent Change from		II Qtr 1983	Percent Change from	
		Last Qtr.	Year Ago		Last Qtr.	Year Ago
INCOME STATISTICS						
Personal Income 1/*						
Total Personal Income (in Billions)	48.6	0.2	2.3	2715.0	2.2	5.9
Due to Labor 2/	n.a	n.a	n.a	1819.7	78.0	66.2
Due to Property 3/	n.a	n.a	n.a	610.9	17.8	12.8
Due to Transfer Payments 4/	n.a	n.a	n.a	403.0	7.9	25.6
Total Disposable Personal Income	n.a	n.a	n.a	2302.8	2.1	6.7
As Percent of Total Pers. Inc.	n.a	n.a	n.a	84.8	-0.1	0.7
Per Capita Personal Income 5/						
Current dollar Value	11679	0.1	1.6	11608	1.9	4.9
Real (1967) Dollar Value	3742	-0.8	-1.5	3920	0.7	1.6
Real Median Family Money Income 5/*						
All Families	8677	-0.8	-1.4	8745	0.5	1.4
Four Person Families	9022	-0.7	-1.2	10193	0.6	1.4
Earnings of Production Workers in Mfg. 6/						
Average Weekly Earnings	371.75	-0.6	4.7	351.47	2.7	6.5
Real Average Weekly Earnings 7/	119.11	-1.6	1.5	118.70	1.4	3.2
Income Related Criteria 8/						
Standard Budgets						
Low						
Moderate						
High						
Poverty Level Income						
Urban Family of Four	9300	---	10.1	9300	---	10.1
Nonurban Family of Four	7910	---	10.0	7910	---	10.0
MEASURES OF PRICE CHANGE AND INFLATION						
Consumer Price Level (CPI) 9/	312.1	1.0	3.2	296.1	1.2	3.2
Food	295.1	1.2	3.5	292.3	1.0	2.2
Housing	369.9	0.5	2.3	321.3	1.1	2.5
Transportation	280.2	1.5	1.7	296.9	1.9	2.9
Medical	316.2	2.4	11.0	352.2	1.2	9.2
Purchasing Power of the Dollar (1/CPI)	.32	-1.2	-3.3	.34	-1.2	-3.2
Wholesale Price Index	n.a	n.a	n.a	301.7	0.4	1.0
Industrial Commodities	n.a	n.a	n.a	313.9	0.1	1.3

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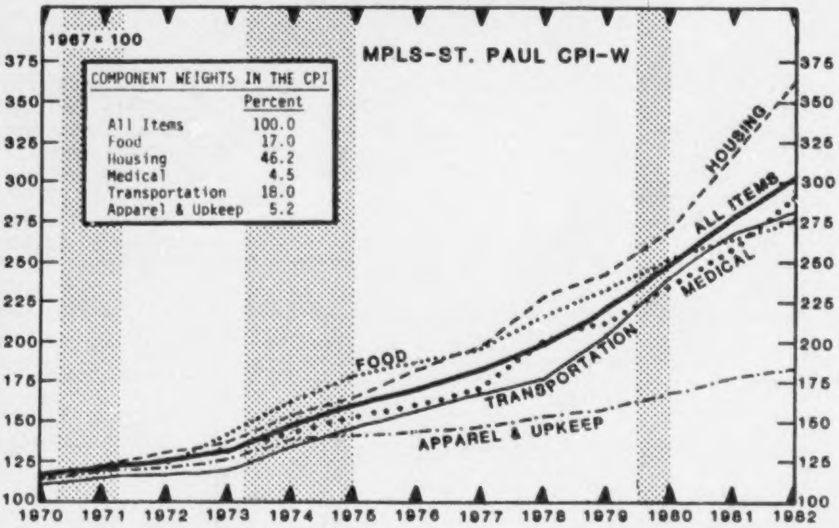
Income & Purchasing Power

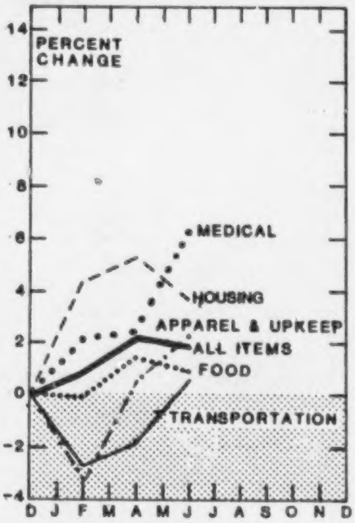
Consumer Price Index- Major Components



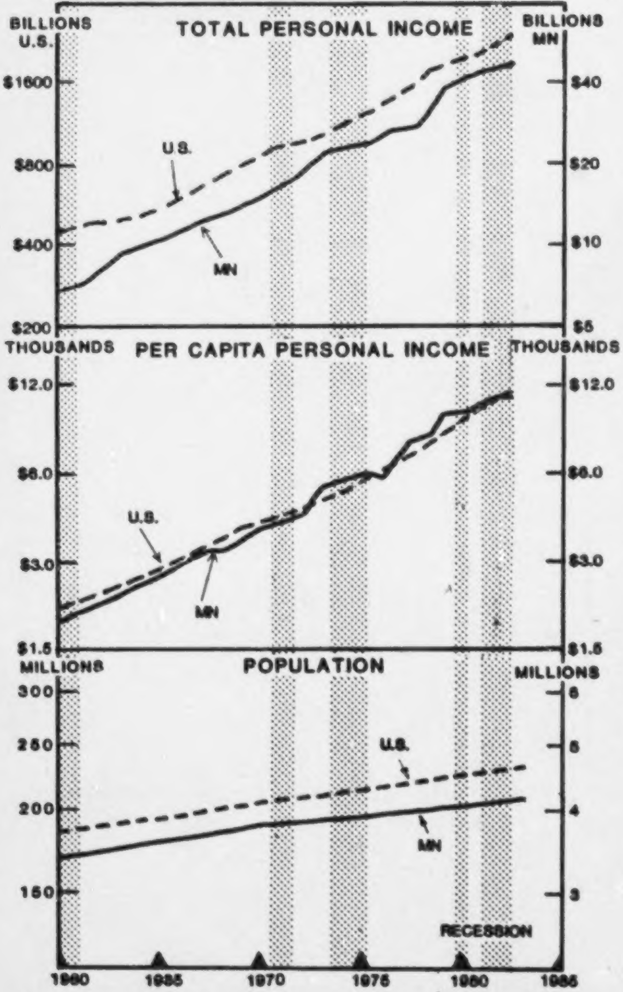
COMPONENT WEIGHTS IN THE CPI

	Percent
All Items	100.0
Food	17.0
Housing	46.2
Medical	4.5
Transportation	18.0
Apparel & Upkeep	5.2

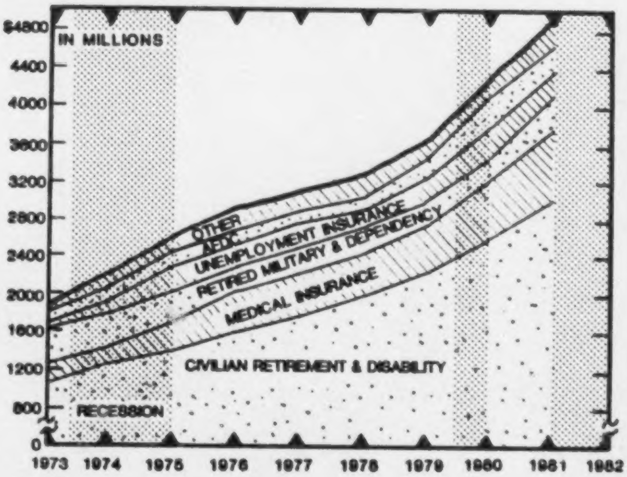
% △ From Dec. 1982



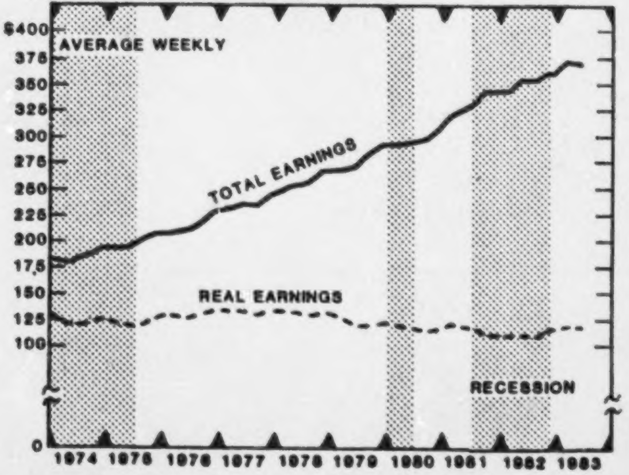
U.S. & MN Personal Income And Population



Government Transfer Payments To Individuals In Minnesota



Minnesota Earnings, Mfg.



5-9

Output, Expenditures, Money, & Credit Conditions

The overall level and composition of National Output shape labor market conditions, and nominal and real earnings. (Nominal values are not adjusted for inflation; real values are adjusted for inflation.) Personal Consumption Expenditures, especially on Durable Goods, together with data on Retail Sales, are frequently used as indicators of future levels of employment. The number of Building Permits influences the level of employment in construction and related industries. The Federal Budget Deficit is a key indicator of the stimulatory effect of government policy. Whether this effect results in inflation, improved employment conditions, or some combination of the two, depends in part, upon the degree to which present productive capacity is utilized. Present and anticipated Money and Credit Conditions determine the ability of consumers, business, and State and Local governments to borrow in order to finance purchases, which, in turn, generate income and employment. Unfortunately, most data of this kind is available only for the Nation. However, in an economy as interdependent as ours, analysis of the directions of change of key national indicators is a useful tool for understanding the course of the State economy.

Output, Expenditure, Money, And Credit Conditions	MINNESOTA			UNITED STATES		
	II Qtr. 1983	Percent Change from		II Qtr. 1983	Percent Change from	
		Last Qtr.	Year Ago		Last Qtr.	Year Ago
OUTPUT AND EXPENDITURE						
Retail Sales (in millions of dollars)	1841	3.1	12.3	97664	5.9	9.4
Private Housing Units Authorized by Building Permits 1/	28668	1.0	68.3	1644	12.3	79.1
Index of Industrial Production 2/	n.a	n.a	n.a	144.3	4.2	3.5
Gross National Product (in billions of 1972 dollars)* 3/	n.a	n.a	n.a	1521.4	2.1	2.2
Personal Consumption Expenditures	n.a	n.a	n.a	1010.5	2.4	4.3
Durable Goods	n.a	n.a	n.a	156.4	7.3	12.1
As Percent of Pers. Cons.	n.a	n.a	n.a	15.5	4.7	7.6
Nondurable Goods	n.a	n.a	n.a	374.3	1.5	3.0
Services	n.a	n.a	n.a	479.8	1.7	3.0
Gross Private Domestic Investment	n.a	n.a	n.a	208.5	9.7	3.5
As Percent of GNP	n.a	n.a	n.a	13.7	7.0	1.5
Nonresidential, Fixed	n.a	n.a	n.a	161.8	1.2	-3.2
Residential	n.a	n.a	n.a	51.2	12.5	35.4
Net Exports	n.a	n.a	n.a	10.2	-50.2	-69.5
Government Purchases	n.a	n.a	n.a	292.2	-0.2	2.2
Federal	n.a	n.a	n.a	118.2	-0.2	7.2
State and Local	n.a	n.a	n.a	174.0	-0.3	-0.8
GNP Gap (Full Empl. Minus Present GNP)						
1972 Dollars (in billions)	n.a	n.a	n.a	162.1	-10.4	11.6
Current Dollars (in billions)	n.a	n.a	n.a	348.7	-9.5	16.5
Current Federal Budget Deficit 4/ As Percent of GNP	n.a	n.a	n.a	-5.0	-5.8	-3.7
Inventory to Sales: Durable Goods in Mfg.	n.a	n.a	n.a	2.05	-6.4	-12.0
New Orders to Shipments: Durable Goods	n.a	n.a	n.a	1.03	1.0	6.2
Plant Capacity Utilization Rate in Mfg. 5/	n.a	n.a	n.a	73.7	4.2	2.9
MONEY AND CREDIT CONDITIONS						
Interest Rates						
Discount Rate	8.50	0.0	-29.2	8.50	0.0	-29.2
Prime Rate	n.a	n.a	n.a	10.50	-3.5	-36.4
Rate on Conventional Mortgages	12.72	-4.9	-11.1	12.74	-4.6	-19.8
Federal Funds Rate	n.a	n.a	n.a	8.80	1.7	-39.4
Consumer Installment Credit Outstanding	n.a	n.a	n.a	348316	1.8	5.6
As Percent of Disposable Personal Income	n.a	n.a	n.a	15.1	-0.2	-1.0

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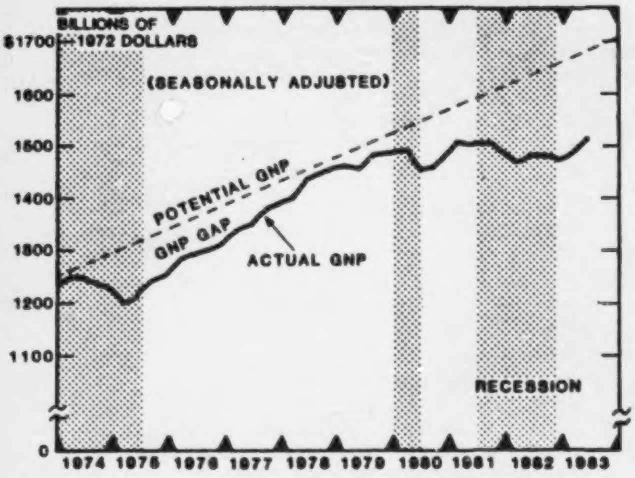
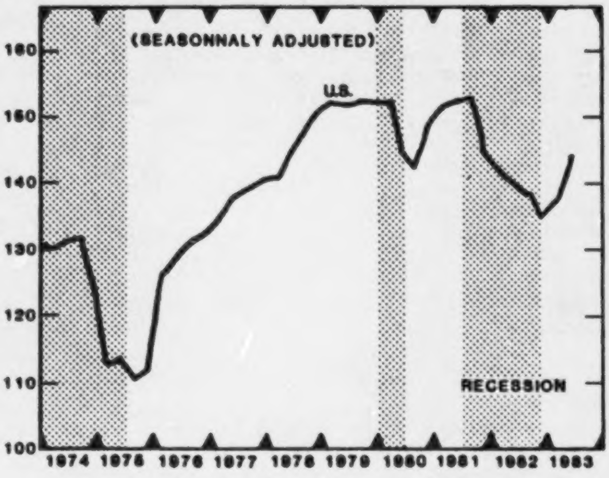
Output, Expenditures, Money, & Credit Conditions

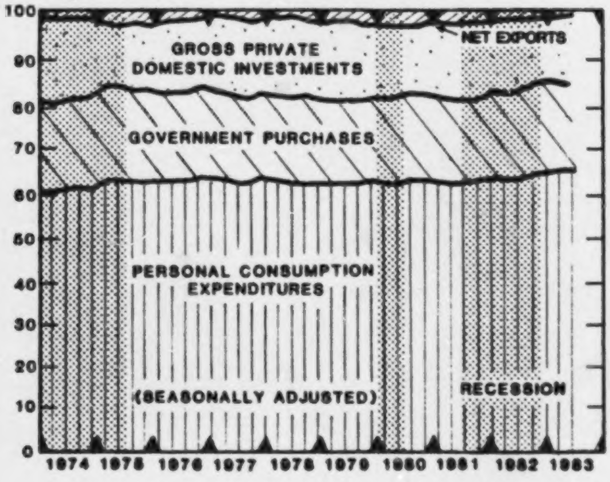
Potential & Seasonally Adjusted GNP



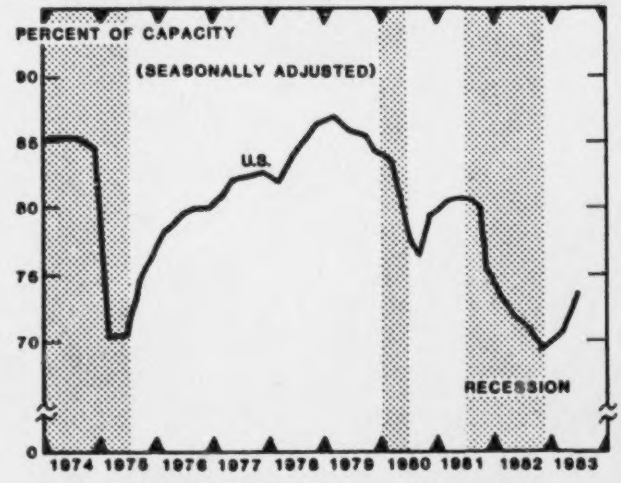
Index of Industrial Production



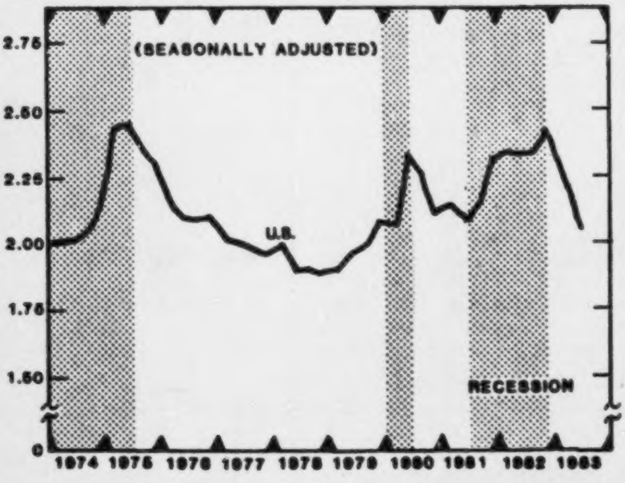
Composition of GNP in Percent



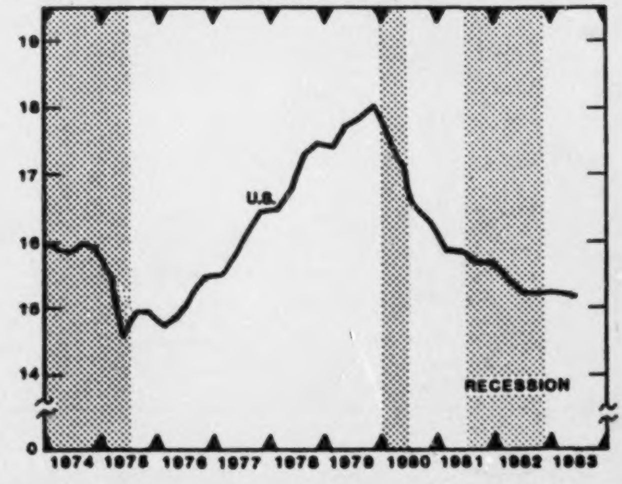
Plant Utilization Rates, Mfg.



Ratio, Inventory to Sales, Durable Mfg.



Ratio, Consumer Installment Debt to Disposable Personal Income, U.S.



Technical Notes

For the reader's convenience the notes which follow are organized in sequence for the pages which appear in the statistical section. Each note corresponds to the footnote or reference notation for the given page.

* Wherever an asterisk appears the data is seasonally adjusted.

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1/ Four percent is a generally agreed upon criteria for measuring full employment. It allows for the movement of persons between jobs. Labor Force Unemployment Rate less four percent, based on official estimates.
2/ Estimated worker hours expended in nonfarm payroll employment as a percent of potential worker hours assuming that each member of the nonfarm labor payroll labor force was employed at a standard rate of 40 hours per week.

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1/ The handbook unemployment rate is the estimate of unemployment prior to the Current Population Survey (CPS) adjustment.

Page S-7

1/ In billions of dollars at an annual rate.
2/ The contribution to total Personal Income of wages, salaries, and other labor income. Percent change entry in Labor Income Impact is the percent that the change in labor income comprises of the change in total Personal Income. This is not available for Minnesota on a quarterly basis.
3/ The figure for the quarter is the contribution to total Personal Income of proprietor's rental, dividend, and interest income. The percent change entry in Property Income Impact is analogous to the Labor Income Impact described in 2/ above.
4/ The contribution to total Personal Income of transfer payments (unemployment compensation, AFDC, etc.) The percent change entry is analogous to the Labor Income Impact in 2/ above.
5/ In dollars at an annual rate.
6/ In dollars per week.
7/ Real average weekly earnings are the average weekly earnings of production workers in manufacturing divided by the CPI.
8/ Annual data.
9/ Value is CPI-W (Urban Wage earners and clerical workers).

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1/ U.S. data annualized in thousands. Source: Bureau of the Census.
2/ Base Year is 1967. Source: Federal Reserve Board.
3/ Totals may not add due to rounding.
4/ Values shown in percent change columns are deficit as percent of GNP for period citied.
5/ Source: Federal Reserve Board.

Available Publications

Nonagricultural Wage & Salary Employment, Hours & Earnings, January 1975 - February 1983, Minnesota (May 1983)

Employment, Hours, and Earnings, January 1970-February 1983, Minneapolis-St. Paul Area (April 1983)

1980 Occupational Employment Statistics in Minnesota (May 1982)

1981 Occupational Employment Statistics in Minnesota (November 1982)

Important Minnesota Occupations by Industry (January 1983)

Minnesota Employment Outlook to 1985 (January 1983)

Minneapolis-St. Paul SMSA Employment Outlook to 1985 (March 1982)

Review of Labor and Economic Conditions and its Monthly Supplement (Recent Issues)

Statistical Supplement to the Annual Report of the Department of Economic Security (September 1981)

Unemployment Compensation Program Statistics: Total Wages, Taxable Wages, Contributions Due, and Benefits Paid, 1950-1978 (April 1980)

Minnesota Employment and Wage data by County (Fourth Quarter 1982) Limited number available for 1975-1981

Average Covered Employment & Wages by Economic Region for the Calendar Year 1982 by two Digits of Industry (also available for 1976-1981)

Occupational Hiring Patterns in Minnesota (October 1981)

Characteristics of Unemployment Insurance Claimants, 1981 (March 1982)

The Economic Outlook for 1983 (February 1983)

Minnesota Labor Market Information Directory (April 1982)

1983 Minnesota Salary Survey by Area (September 1983)

1983 Minnesota Hospitals and Nursing Homes Salary Survey (September 1983)

1983 Minnesota Wage Data by Industry and Size of Firm (September 1983)

Labor Market Information Summary for 1983 for Minneapolis-St. Paul SMSA (August 1983) and St. Cloud SMSA (August 1983)

These publications are available upon request while supply lasts.

Write to: Director, Research and Statistical Services Office
Minnesota Department of Economic Security
390 North Robert Street
St. Paul, Minnesota 55101

8/30/83 54160-3 A

CURRENT MINNESOTA LABOR MARKET CONDITIONS

July, 1983 Supplement to The Review of Labor and Economic Conditions
Prepared by the Research and Statistical Services Office, MN Dept. of Economic Security, 390 N. Robert St., St. Paul MN 55101, in cooperation with the U.S. Department of Labor, Bureau of Labor Statistics, and Employment and Training Admin.

Nation

The economic reports for June and the first quarter indicate that the recovery has become considerably stronger than was anticipated. Economists had expected that this year's recovery would be weaker than most previous post-war upturns, but the growth for the first six months is close to average.

Although the unemployment rate continues to drop very slowly, both total and nonfarm payroll employment are registering very sharp gains. The seasonally adjusted unemployment rate fell another 0.1 of a point to 10.0 percent in June. Total employment (seasonally adjusted) rose by a strong 1.2 million in June. The sharp rise, however, may have been overstated because the survey was taken somewhat later than usual this year. Meanwhile, seasonally adjusted nonfarm payroll employment increased by 344,000 in June, the largest monthly rise in more than four years. Since December, payroll employment has risen by 1.1 million. During this six month period, manufacturing, trade and services have increased by 365,000, 500,000 and 200,000, respectively.

The best evidence of a stronger than expected recovery was an 8.7 percent jump in real gross national product for the second quarter. Also, industrial production climbed for the seventh consecutive month in June while retail sales rose for the fourth month in a row. Moreover, consumer spending has risen strongly in each of the past four months. Although housing starts fell slightly in June, they were 92 percent higher than a year ago.

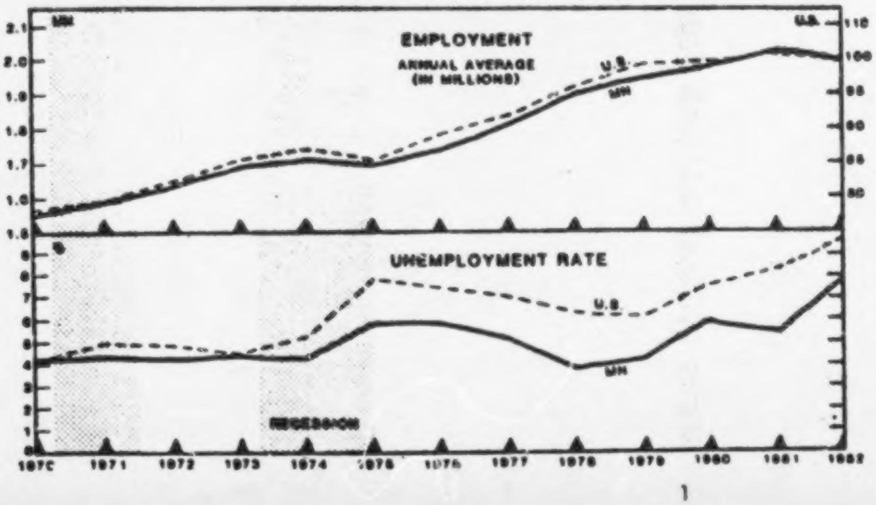
State

Data from both the labor force and establishment surveys indicate that the Minnesota economy did not improve between May and June. Although the unemployment rate rose much less than normal for June, total employment increased slightly less than usual while seasonally adjusted nonagricultural wage and salary employment actually showed a decline.

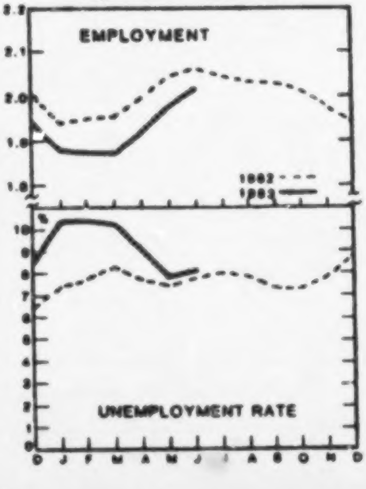
The seasonally unadjusted unemployment rate rose 0.2 of a point to 8.1 percent in June after a sizeable April to May decline. The small June increase which was only half of the average May to June rise may have been the result of an unfavorable view of the job market by the discouraged unemployed. Unadjusted total employment, which, on average, grows by 2.3 percent in June, rose by only 2.1 percent. Moreover, seasonally adjusted nonfarm payroll employment declined by 2,700 in June after a revised gain of 8,400 in May. Payroll employment in June was 13,600 higher than the recession low in December, but was still 80,100 below the previous high in January 1981. Over two-thirds of the employment gain since December was in the trade and services industries, while a fourth of the rise was in construction. Employment in manufacturing has only increased by 1,900 or 0.6 percent since December. Economists in the State expect that manufacturing employment will begin to rise later this year. Even though employment in construction rose modestly in June, it should climb again in the coming months as highway and housing construction picks up.

Labor Force Estimates	MINNESOTA (Numbers in '000's)			UNITED STATES (Numbers in '000,000's)		
	June 1983	Change From Last Mo.	Change From Year Ago	June 1983	Change From Last Mo.	Change From Year Ago
Civilian Labor Force	2194.1	48.2	-48.0	113.4	3.1	1.8
Employed	2017.4	41.3	-49.9	101.8	2.3	1.1
Unemployed	176.7	6.9	1.9	11.6	0.8	0.7
Unemployment Rate						
Actual	8.1	0.2	0.3	10.2	0.4	0.4
Seasonally Adjusted	n.a	n.a	n.a	10.0	-0.1	0.5

MN and the U.S., Employment & Unemployment Rate



MN, 1982 and 1983



Minnesota Nonagricultural Wage & Salary Employment, Hours, and Earnings

INDUSTRY	EMPLOYMENT[1] (thousands)			PER CENT CHANGE FROM		PRODUCTION WORKERS' HOURS & EARNINGS					
						Average Weekly Earnings		Average Hourly Earnings		Average Weekly Hours	
	June 1983	May 1983	June 1982	May 1983	June 1982	June 1983	May 1983	June 1983	May 1983	June 1983	May 1983
TOTAL NONAGRICULTURAL	1718.2	1707.7	1735.1	0.6	-1.0						
MANUFACTURING	337.0	333.8	348.6	0.9	-3.3	375.31	374.36	9.55	9.55	39.3	39.2
Durable Goods	199.6	198.8	208.7	0.4	-4.3	387.53	382.24	9.64	9.58	40.2	39.9
Furniture, Lumber and Wood	13.8	13.7	13.6	1.1	1.6	396.78	397.10	10.20	10.13	38.9	39.2
Stone, Clay and Glass	8.6	8.2	8.9	5.3	-3.2	367.09	367.05	9.51	9.46	38.6	38.8
Primary Metals	4.6	4.7	5.6	-2.1	-16.3	356.17	342.61	8.86	8.74	40.2	39.2
Fabricated Metals	32.2	32.1	33.4	0.3	-3.6	433.19	423.39	10.54	10.48	41.1	40.4
Nonelectrical Machinery	76.1	76.4	81.9	-0.4	-7.1	393.02	386.28	9.85	9.73	39.9	39.7
Electrical Machinery	26.4	26.3	26.6	0.4	-0.7	350.55	342.15	8.55	8.49	41.0	40.3
Transportation Equipment	5.9	5.9	6.1	1.6	-3.0	435.56	428.89	10.42	10.41	41.8	41.2
Other Durable Goods [2]	31.9	31.5	32.7	1.3	-2.3	359.79	359.68	9.04	9.06	39.8	39.7
Nondurable Goods	137.3	135.0	139.9	1.7	-1.9	361.17	364.23	9.43	9.51	38.3	38.3
Food and Kindred	44.5	42.7	45.8	4.4	-2.8	320.88	329.46	8.40	8.67	38.2	38.0
Textile and Apparel	4.4	4.5	4.9	-1.8	-10.0	226.70	228.96	6.35	6.36	35.7	36.0
Paper and Allied	32.5	32.0	33.0	1.8	-1.5	454.54	454.31	10.62	10.59	42.8	42.9
Printing and Publishing	35.0	35.2	35.5	-0.4	-1.4	355.00	355.70	10.26	10.34	34.6	34.4
Chemical and Petroleum	9.4	9.4	9.2	0.5	2.6	409.22	405.96	10.36	10.20	39.5	39.8
Rubber and Leather	11.4	11.4	11.5	0	-0.9	302.41	305.75	8.24	8.11	36.7	37.7
NONMANUFACTURING	1381.3	1373.9	1386.5	0.5	-0.4						
Mining and Quarrying	9.8	9.5	11.3	3.3	-13.2	372.56	363.26	11.79	11.91	31.6	30.5
Metal Mining	7.6	7.5	9.2	1.4	-17.1	369.09	367.72	12.64	12.68	29.2	29.0
Construction	65.6	59.0	66.0	11.1	-0.7	552.20	547.97	14.57	14.81	37.9	37.0
Building	17.0	16.1	17.9	6.0	-5.0	505.42	529.46	13.55	13.97	37.3	37.9
Highway and Heavy	14.6	10.9	12.7	33.5	15.3	514.42	470.40	12.19	12.25	42.2	38.4
Special Trades	34.0	32.0	35.5	6.1	-4.2	594.77	586.44	16.43	16.29	36.2	36.0
Transportation	60.3	61.5	58.9	-2.0	2.3						
Railroads	13.5	13.4	14.1	0.4	-4.7	524.86	524.86	11.41	11.41	46.0	46.0
Trucking and Warehousing	23.1	22.9	23.5	0.9	-1.7	430.98	427.25	11.84	11.77	36.4	36.3
Public Utilities	33.1	32.9	34.5	0.7	-4.0	480.25	480.64	12.22	12.23	39.3	39.3
Communications	19.0	18.9	20.0	0.5	-5.1	439.99	439.99	11.34	11.34	38.8	38.8
Elec., Gas and Sanitary	14.1	14.0	14.5	0.9	-2.5	525.83	527.08	13.18	13.21	39.9	39.9
Trade	435.9	430.8	439.5	1.2	-0.8	219.98	216.35	7.26	7.26	30.3	29.8
Retail	325.1	320.4	324.6	1.5	0.2	176.40	172.07	6.30	6.28	28.0	27.4
General Merchandise	43.5	43.4	45.5	0.1	-4.3	172.87	167.84	5.90	5.91	29.3	28.4
Food Stores	46.4	45.3	45.4	2.4	2.3	211.23	207.89	7.36	7.32	28.7	28.4
Automotive	34.5	34.1	34.5	1.2	0	265.25	262.75	7.43	7.36	35.7	35.7
Eating and Drinking	111.0	109.1	111.0	1.8	0	108.23	102.71	4.77	4.69	22.7	21.9
Wholesale	110.7	110.4	114.9	0.3	-3.6	375.19	371.30	9.72	9.72	38.6	38.2
F.I.R.E.	98.9	98.1	99.1	0.8	-0.2						
Finance	47.0	46.7	46.2	0.6	1.8						
Insurance	35.2	35.1	35.9	0.2	-1.8						
Real Estate	16.7	16.2	17.0	2.8	-1.9						
Service Industries	390.0	389.3	384.2	0.2	1.5						
Hotel and Lodging	22.4	20.9	22.6	7.2	-0.9						
Business Services	58.0	57.9	56.2	0.1	3.2						
Health Services	135.3	134.4	132.8	0.7	1.8						
Private Education	19.2	24.3	19.0	-21.0	1.1						
Soc. Serv., Museums etc.	83.4	82.2	82.8	1.4	0.8						
Government	287.7	292.8	293.0	-1.8	-1.8						
Federal	30.0	29.9	30.6	0.6	-1.9						
State	68.1	73.8	68.1	-7.8	-0.1						
Local	189.6	189.1	194.2	0.2	-2.4						

[1] **Totals may not add because of rounding.**

[2] **Includes Scientific Instruments and Miscellaneous Industries.**

Labor Force Data: State, SMSAs, and Counties

Area or County	June, 1983 Prelim.		
	Labor Force 1/	Unemp.	Un. Rate
State of Minnesota	2194133	176692	8.1
Metropolitan Areas			
Duluth/Superior (Duluth City Only)	37479	5159	13.8
Fargo/Moorhead (Clay County, MN Only)	27734	2269	8.2
Minneapolis/St. Paul SMSA 2/	1164932	80563	6.9
Rochester SMSA (Olmsted Co.)	59836	3497	5.8
St. Cloud SMSA 3/	79322	7511	9.5
Counties			
Aitkin	5762	1057	18.3
Anoka	111486	8832	7.9
Becker	13032	1595	12.2
Beltrami	16700	1503	9.0
Benton	12240	1161	9.5
Big Stone	4241	302	7.1
Blue Earth	29636	1960	6.6
Brown	15894	1208	7.6
Carlton	12290	1431	11.6
Carver	20646	1243	6.0
Cass	11263	1214	10.8
Chippewa	7748	621	8.0
Chisago	14450	981	6.8
Clay	27734	2269	8.2
Clearwater	4272	726	17.0
Cook	2464	305	12.4
Cottonwood	7923	461	5.8
Crow Wing	18116	1962	10.8
Dakota	108598	6932	6.4
Dodge	8728	719	8.2
Douglas	14328	1071	7.5
Faribault	11561	904	7.8
Fillmore	13268	952	7.2
Freeborn	18669	1657	8.9
Goodhue	20176	1527	7.6
Grant	3847	234	6.1
Hennepin	529160	36094	6.8
Houston	10525	649	6.2
Hubbard	5880	745	12.7
Isanti	10438	1057	10.1
Itasca	18556	2770	14.9
Jackson	8558	519	6.1
Kanabec	6004	735	12.2
Kandiyohi	18931	1407	7.4
Kittson	3625	331	9.1
Koochiching	7777	919	11.8
Lac qui Parle	6368	371	5.8
Lake	4789	1596	33.3
Lake of the Woods	2049	173	8.4
Le Sueur	13006	1163	8.9
Lincoln	4243	241	5.7
Lyon	15496	902	5.8
McLeod	17878	1318	7.4
Mahnomen	3262	365	11.2
Marshall	6943	891	12.8
Martin	14733	1143	7.8
Meeker	12046	1318	10.9
Mille Lacs	9347	960	10.3
Morrison	13400	1508	11.3
Mower	18818	1686	9.0
Murray	6714	435	6.5
Nicollet	15166	919	6.1
Nobles	12415	620	5.0
Norman	5196	458	8.8
Olmsted	59836	3497	5.8
Otter Tail	25800	2189	8.5
Pennington	6530	679	10.4
Pine	10329	1142	11.1
Pipestone	5963	270	4.5
Polk	16079	1863	11.6
Pope	6057	461	7.6
Ramsey	259241	18428	7.1
Red Lake	2411	392	16.3
Redwood	11485	691	6.0
Renville	12554	1095	8.7
Rice	24129	1863	7.7
Rock	6189	270	4.4
Roseau	6144	570	9.3
St. Louis (Inc. Duluth)	92099	14711	16.0
Scott	24657	1725	7.0
Sherburne	14644	1488	10.2
Sibley	9083	610	6.7
Stearns	52438	4862	9.3
Steele	17826	1367	7.7
Stevens	6283	339	5.4
Swift	6829	644	9.4
Todd	12666	1082	8.5
Traverse	3150	204	6.5
Wabasha	9988	760	7.6
Wadena	5811	612	10.5
Waseca	9443	780	8.3
Washington	63434	3951	6.2
Watonwan	7202	663	9.2
Wilkin	4677	348	7.4
Winona	22974	2177	9.5
Wright	33260	2377	7.1
Yellow Medicine	8527	462	5.4

Technical Notes:

1/ Labor force data is computed according to BLS methodology. The method includes an adjustment to assure that the sum of the substate areas equals the separately estimated State total. This adjustment is Applied to all county and SMSA areas. County and area unemployment was multiplied by an adjustment factor of 1.61 ; employment was multiplied by 1.01. For a more detailed explanation see the Review of Labor and Economic Conditions, Vol. 4, No. 4, (February 1978 issue), p. 29.

2/ Anoka, Carver, Chisago, Dakota, Hennepin, Ramsey, Scott, Washington, and Wright Counties.

3/ Benton, Sherburne, and Stearns Counties.

Selected Minnesota Program Statistics

Characteristics of the Insured Unemployed

Tables 1 and 2 provide data on persons who filed a claim for unemployment compensation in Minnesota during the month. Only those claiming benefits from the regular State program are represented since data on the characteristics of Federal employees and veterans are not available.

Although the number of claimants for unemployment benefits fell sharply between May and June, as well as from a year ago, an undetermined part of these declines was the result of some unemployed persons no longer being eligible for benefits. Nevertheless, the total number of claimants dropped by 6,031 or 13.5 percent between May and June, the largest June decline both numerically and in percentage terms since June 1979. Nearly all of the June decrease was among claimants in construction and manufacturing. Over-the-year, claimants declined by 19,976 or 34.1 percent. The decrease from a year earlier in June was the fourth in a row. In addition to the large declines in claimants in construction and manufacturing from June 1982, there was a significant over-the-year decrease among claimants in the mining industry. However, employment in the mining industry is likely to fluctuate considerably on a month to month basis, with industry claims for unemployment benefits behaving in a similar manner.

Table 1. Distribution of Insured Unemployed, By Age and Sex, June, 1983

Age Groups	Number	Percent Distributions		
		Men of Totals	Men of Men	Women of Women
TOTALS	38598	62.2	100.0	100.0
Under 45	29030	63.2	76.3	73.4
Under 25	7033	63.8	18.6	17.5
25-34	13872	64.9	37.5	33.4
35-44	8125	59.6	20.2	22.5
45 and Over	9568	59.4	23.7	26.6
45-54	5315	59.0	13.1	14.9
55 and Over	4253	60.0	10.6	11.7

Table 2. Distribution of Insured Unemployed By Industry and Occupation, June, 1983

Industry and Occupational Attachment	Number	Percent of Total	Percent Long-Term Unemployed 1/	Women as Percent of Total
Total, All Industries	38598	100.0	27.2	38.1
Ag., For., Fish.	360	0.9	27.5	28.7
Mining	1068	2.8	7.9	4.4
Construction	4509	11.7	30.8	5.4
Manufacturing	11473	29.7	25.6	34.4
Pub. Utilities	2134	5.5	24.9	24.5
Wholesale Trade	2872	7.5	35.2	29.5
Retail Trade	5567	14.4	36.3	48.1
Fin., Ins., Real Est.	1089	2.8	34.8	59.7
Services	8303	21.5	21.5	61.3
Public Admin.	584	1.5	28.6	48.1
Inf. Not Available	639	1.7	4.9	39.1
Total, All Occupations	38598	100.0	27.2	38.1
Prof., Tech., Mgr.	6885	17.8	25.0	48.4
Clerical	5035	13.0	31.7	81.9
Sales	1782	4.6	39.0	41.9
Services	3265	8.5	28.8	56.4
Farm., For., Fish.	254	0.7	25.2	16.5
Processing	3019	7.8	9.9	25.2
Machine Trades	2588	6.7	31.5	16.3
Benchwork	3093	8.0	30.2	57.5
Structural Work	6158	16.0	29.9	2.6
Misc.	6007	15.6	24.1	21.1
Inf. Not Available	512	1.3	31.7	30.8

1/ Long-Term unemployed refers to unemployment insurance claimants whose current spell of unemployment has lasted 15 weeks or longer.

Job Service Applicant Supply and Demand

Table 3 compares Job Service (J.S.) job applicants with the J.S. job openings that existed at the end of the month. These comparisons are expressed as supply/demand ratios. Other things being equal, the greater the ratio of applicants to openings, the greater the competition has been for work within that occupational category. To put these ratios into context, the reader must remember that not only do job seekers and employers in general find jobs or recruit workers through other means, but those interested in certain kinds of jobs are particularly unlikely to use the J.S. For example, workers seeking professional and Managerial jobs are least likely to use the J.S., whereas employers usually recruit construction workers through union halls and hire teachers directly. Thus, the main value of Table 3 is that it reflects, for broad occupational groups, the relative labor market conditions that those using the J.S. encountered when seeking work.

Table 3. Experienced Supply/Job Openings Demand 1/

Occupation	Applicants (Supply) June 1983	Job Openings (Demand) June 1983	Supply/Demand Ratio	
			June 1983	June 1982
Total	115547	6921	16.7	8.2
Prof., Tech., Mgr.	13640	520	26.2	8.1
Clerical	18404	1868	9.9	6.8
Sales	4919	921	5.3	4.4
Dom. Services	2339	162	14.4	2.6
Other Services	15934	1194	13.3	4.6
Farm., Fish., For.	7659	195	39.3	16.1
Processing	2720	551	4.9	3.3
Machine Trades	7893	229	34.5	19.4
Benchwork	7920	192	41.3	20.4
Structural Work	15884	277	57.3	14.7
Mtr. Frght., Trans.	4919	103	47.8	18.5
Pkg. & Mat. Hndlg.	11559	674	17.1	11.0
Other	1757	35	50.2	25.9

1/ Inexperienced and improperly coded job applicants are not included in this table.